



SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 270, 274, and 279

[Release Nos. 33-11211; 34-97876; IA-6344; IC-34959; File No. S7-22-21]

RIN 3235-AM80

Money Market Fund Reforms; Form PF Reporting Requirements for Large Liquidity Fund Advisers; Technical Amendments to Form N-CSR and Form N-1A

AGENCY: Securities and Exchange Commission.

ACTION: Final rule.

SUMMARY: The Securities and Exchange Commission (“Commission”) is adopting amendments to certain rules that govern money market funds under the Investment Company Act of 1940. These amendments are designed to improve the resilience and transparency of money market funds. The amendments will revise the primary rule that governs money market funds to remove the ability for a fund board to temporarily suspend redemptions if the fund’s liquidity falls below a threshold. In addition, the amendments will remove the tie between liquidity thresholds and the potential imposition of liquidity fees. The amendments will also require certain money market funds to implement a liquidity fee framework that will better allocate the costs of providing liquidity to redeeming investors. In addition, the Commission is increasing the daily liquid asset and weekly liquid asset minimum requirements to 25% and 50%, respectively. The Commission also is amending certain reporting requirements on Form N-MFP and Form N-CR and making certain conforming changes to Form N-1A to reflect amendments to the regulatory framework for money market funds. In addition, the Commission is addressing how money market funds with stable net asset values may handle a negative interest rate environment, including by adopting amendments that will permit these funds to use share cancellation, subject to certain conditions. Further, the Commission is adopting rule amendments to specify how funds must calculate weighted average maturity and weighted average life. In

addition, the Commission is adopting amendments to Form PF concerning the information large liquidity fund advisers must report for the liquidity funds they advise. Finally, the Commission is adopting two technical amendments to Form N-CSR and Form N-1A to correct errors from recent Commission rulemakings.

DATES: *Effective dates:* The rule amendments are effective [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. The amendments to Forms N-1A and N-CSR are effective [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] and the amendments to Forms N-CR, N-MFP, and PF are effective June 11, 2024.

Compliance dates: The applicable compliance dates are discussed in section II.H.

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SUPPLEMENTARY INFORMATION: The Commission is adopting amendments to the following rules and forms:

Commission Reference		CFR Citation (17 CFR)
Investment Company Act of 1940 (“Act” or “Investment Company Act”) ¹	Rule 2a-7	§ 270.2a-7
	Rule 31a-2	§ 270.31a-2
	Form N-MFP	§ 274.201
	Form N-CR	§ 274.222
Securities Act of 1933 (“Securities Act”) ² and Investment Company Act	Form N-1A	§§ 239.15A and 274.11A

¹ 15 U.S.C. 80a-1 *et seq.* Unless otherwise noted, all references to statutory sections are to the Investment Company Act, and all references to rules under the Investment Company Act are to title 17, part 270 of the Code of Federal Regulations [17 CFR part 270].

² 15 U.S.C. 77a *et seq.*

Securities Exchange Act of 1934 (“Exchange Act”) ³ and Investment Company Act	Form N-CSR	§§ 249.331 and 274.128
Investment Advisers Act of 1940 (“Advisers Act”)	Form PF	§ 279.9

TABLE OF CONTENTS

I.	Introduction	
A.	Role of Money Market Funds and Existing Regulatory Framework	
B.	March 2020 Market Events and Need for Reform	
II.	Discussion	
A.	Amendments to Remove the Tie Between the Weekly Liquid Asset Threshold and Redemption Gates and Liquidity Fees	
1.	Unintended Effects of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates	
2.	Removal of Redemption Gates from Rule 2a-7	
B.	Liquidity Fee Requirement	
1.	Determination to Adopt a Liquidity Fee Requirement	
2.	Terms of the New Mandatory Liquidity Fee Requirement	
3.	The Continued Availability of Discretionary Liquidity Fees	
4.	Disclosure	
5.	Tax and Accounting Implications of Liquidity Fees	
C.	Amendments to Portfolio Liquidity Requirements	
1.	Increase of the Minimum Daily and Weekly Liquidity Requirements	
2.	Consequences for Falling Below Minimum Daily and Weekly Liquidity Requirements	
3.	Amendments to Liquidity Metrics in Stress Testing	
D.	Amendments Related to Potential Negative Interest Rates	
E.	Amendments to Specify the Calculation of Weighted Average Maturity and Weighted Average Life	
F.	Amendments to Reporting Requirements	
1.	Amendments to Form N-CR	
2.	Amendments to Form N-MFP	
3.	Amendments to Form PF	
G.	Technical Amendments to Form N-CSR and Form N-1A	
H.	Effective and Compliance Dates	
III.	Other Matters	
IV.	Economic Analysis	
A.	Introduction	
B.	Baseline	
1.	Money Market Funds	
2.	Large Liquidity Funds and Form PF	

³ 15 U.S.C. 78a *et seq.*

- 3. Other Affected Entities
- C. Costs and Benefits of the Final Amendments
 - 1. Removal of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates
 - 2. Raised Liquidity Requirements
 - 3. Stress Testing Requirements
 - 4. Liquidity Fees
 - 5. Amendments Related to Potential Negative Interest Rates
 - 6. Disclosures
 - 7. Calculation of Weighted Average Maturity and Weighted Average Life
 - 8. Form PF Requirements for Large Liquidity Fund Advisers
- D. Alternatives
 - 1. Alternatives to the Removal of Temporary Redemption Gates
 - 2. Alternatives to the Removal of the Tie between Weekly Liquid Assets and Discretionary Liquidity Fees
 - 3. Alternatives to the Final Increases in Liquidity Requirements
 - 4. Alternative Stress Testing Requirements
 - 5. Alternative Implementations of Liquidity Fees
 - 6. Swing Pricing
 - 7. Expanding the Scope of the Floating NAV Requirements
 - 8. Countercyclical Weekly Liquid Asset Requirements
 - 9. Amendments Related to Potential Negative Interest Rates
 - 10. Amendments Related to WAL/WAM Calculation
 - 11. Form PF Amendments for Large Liquidity Fund Advisers
 - 12. Disclosures
 - 13. Sponsor Support
 - 14. Capital Buffers
 - 15. Minimum Balance at Risk
 - 16. Liquidity Exchange Bank Membership
 - 17. Alternative Compliance and Filing Periods
- E. Effects on Efficiency, Competition, and Capital Formation
- V. Paperwork Reduction Act
 - A. Introduction
 - B. Rule 2a-7
 - C. Form N-MFP
 - D. Form N-CR
 - E. Form N-1A
 - F. Form PF
 - G. Rule 31a-2
- VI. Regulatory Flexibility Act Certification
- Statutory Authority

I. INTRODUCTION

The Commission is adopting amendments to rule 2a-7 under the Investment Company Act of 1940. Money market funds are a type of mutual fund registered under the Act and regulated pursuant to rule 2a-7.⁴ These funds are popular cash management vehicles for both retail and institutional investors because they seek to provide investors with principal stability and access to daily liquidity. In addition, money market funds serve as an important source of short-term financing for businesses, banks, and Federal, state, municipal, and Tribal governments. In March 2020, in connection with an economic shock from the onset of the COVID-19 pandemic, certain types of money market funds had significant outflows, contributing to stress on short-term funding markets that resulted in government intervention to enhance the liquidity of such markets.⁵ Our historical experience with these funds and the events of March 2020 have led us to re-evaluate certain aspects of the regulatory framework applicable to money market funds. Accordingly, the Commission is adopting amendments to rule 2a-7 and certain reporting forms that are designed to improve the resilience of money market funds during times of market stress while preserving the benefits that investors have come to expect from these funds.

In December 2021, the Commission proposed to amend rule 2a-7 to remove the tie between weekly liquid asset thresholds and the potential imposition of liquidity fees and redemption gates, since it appears these provisions contributed to investors' incentives to redeem from certain funds in March 2020 and affected fund managers' willingness to use available liquidity in their portfolios to meet redemptions.⁶ For funds that experienced the heaviest outflows in March 2020 and in prior periods of market stress, the proposal also included a new swing pricing requirement that was designed to mitigate the dilution and investor harm that can

⁴ Money market funds are also sometimes called “money market mutual funds” or “money funds.”

⁵ See *infra* section I.B (discussing these events in more detail).

⁶ Money Market Fund Reforms, Investment Company Act Release No. 34441 (Dec. 15, 2021) [87 FR 7248 (Feb. 8, 2022)] (“Proposing Release”).

occur when other investors redeem—and remove liquidity—from these funds, particularly when certain markets in which the funds invest are under stress and effectively illiquid. The Commission also proposed to increase the minimum daily and weekly liquid asset requirements to better equip money market funds to manage significant and rapid investor redemptions. In addition, we proposed certain form amendments to improve transparency and facilitate Commission monitoring of money market funds. As part of the proposal, the Commission proposed to amend rule 2a-7 to prohibit a stable net asset value (“NAV”) money market fund from using share cancellation or a reverse distribution mechanism in a negative interest rate environment.

The Commission received comment letters on the proposal from a variety of commenters, including funds and investment advisers, law firms, other fund service providers, investor advocacy groups, professional and trade associations, and interested individuals.⁷ As discussed in greater detail throughout this release, these commenters expressed a diversity of views. Many commenters expressed support for aspects of the proposal, including removing the link between liquidity thresholds and the imposition of redemption gates and liquidity fees; increasing the minimum daily and weekly liquid asset requirements above current minimums; and clarifying the calculation of weighted average portfolio maturity and weighted average life maturity.⁸ Many commenters, however, expressed concern about the consequences of the proposed swing pricing requirement, suggesting, among other reasons, that it would be operationally difficult and may not effectively prevent destabilizing runs during periods of stress.⁹ Separately, several commenters expressed that the Commission should adopt more modest increases to the daily and

⁷ The comment letters on the Proposing Release (File No. S7-22-21) are available at <https://www.sec.gov/comments/s7-22-21/s72221.htm>.

⁸ *See, e.g.*, Comment Letter of Investment Company Institute (Apr. 11, 2022) (“ICI Comment Letter”); Comment Letter of Americans for Financial Reform Education Fund (Apr. 11, 2022) (“Americans for Financial Reform Comment Letter”).

⁹ *See, e.g.*, Comment Letter of The Asset Management Group of the Securities Industry and Financial Markets Association (Apr. 11, 2022) (“SIFMA AMG Comment Letter”); Comment Letter of State Street Global Advisors (Apr. 11, 2022) (“State Street Comment Letter”).

weekly liquid asset requirements than proposed.¹⁰ Many commenters also generally opposed the proposed clarification of how stable net asset value money market funds should handle a negative interest rate environment, stating that the proposed prohibition from using share cancellation in certain negative interest environments could be operationally burdensome and costly without clear benefits for investors.¹¹ Lastly, while some commenters were supportive of the proposed modifications to the fund reporting requirements, others expressed concern about the sensitivity or burdens of reporting certain information regarding money market fund investors or portfolios, as well as significant declines in liquidity.¹²

After considering the comments on the proposal, we are adopting rule and form amendments to improve the resilience and transparency of money market funds, with certain modifications.¹³ As proposed, the final amendments will remove the redemption gate provision from rule 2a-7; increase the minimum daily and weekly liquid asset requirements to 25% and 50%, respectively; specify the weighted average portfolio maturity and weighted average life maturity calculations; and require public reporting of significant declines in liquidity on Form N-CR. However, we are not adopting the proposed swing pricing requirement. Rather, the final amendments will modify the current liquidity fee framework to require institutional prime and institutional tax-exempt money market funds to impose a liquidity fee when the fund experiences net redemptions that exceed 5% of net assets, while also allowing any non-government money market fund to impose a discretionary liquidity fee if the board determines a fee is in the best

¹⁰ See, e.g., Comment Letter of Western Asset Management Company, LLC (Apr. 11, 2022) (“Western Asset Comment Letter”); Comment Letter of Healthy Markets Association (Apr. 12, 2022) (“Healthy Markets Association Comment Letter”).

¹¹ See, e.g., Comment Letter of Federated Hermes Inc. (Apr. 11, 2022) (“Federated Hermes Comment Letter I”); Comment Letter of Allspring Funds Management, LLC (Apr. 11, 2022) (“Allspring Funds Comment Letter”); Comment Letter of Fidelity Management Research Company LLC (Apr. 11, 2022) (“Fidelity Comment Letter”).

¹² See *infra* section II.F.

¹³ We have consulted and coordinated with the Consumer Financial Protection Bureau regarding this final rulemaking in accordance with section 1027(i)(2) of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

interest of the fund. Similar to the proposed swing pricing requirement, the liquidity fee framework is designed to better allocate liquidity costs associated with redemptions to the redeeming investors. In addition, in a change from the proposal, the final amendments will permit retail and government money market funds to use a reverse distribution mechanism if negative interest rates occur in the future with certain conditions, including appropriate disclosure to concisely and clearly describe to shareholders the fund's use of a reverse distribution mechanism and its effect on investors.

Moreover, while we are adopting the amended reporting requirements for Form N-MFP largely as proposed, we are making modifications to certain aspects of the requirements in response to commenter concerns about the sensitivity of publicly reporting certain investor and portfolio information. We are also adopting, largely as proposed in a January 2022 Proposing Release, amendments to Form PF reporting requirements for large liquidity fund advisers.¹⁴ The final amendments to Form PF generally are designed to align with relevant revisions we are making to Form N-MFP. Finally, we are adopting two technical amendments to Form N-CSR and Form N-1A to correct errors from recent Commission rulemakings.

A. Role of Money Market Funds and Existing Regulatory Framework

Money market funds are managed with the goal of providing principal stability by investing in high-quality, short-term debt securities—such as Treasury bills, repurchase agreements, or commercial paper—whose value does not fluctuate significantly in normal market conditions. Money market fund investors receive dividends that reflect prevailing short-term interest rates and have access to daily liquidity, as money market fund shares are redeemable on demand. The combination of limited principal volatility, diversification of portfolio securities, payment of short-term yields, and liquidity has made money market funds

¹⁴ Amendments to Form PF to Require Current Reporting and Amend Reporting Requirements for Large Private Equity Advisers and Large Liquidity Fund Advisers, Investment Advisers Act Release No. 5950 (Jan. 26, 2022) [87 FR 9106 (Feb. 17, 2022)] (“Form PF Proposing Release”).

popular cash management vehicles for retail and institutional investors. Money market funds also serve as an important source of short-term financing for businesses, banks, and governments.

Different types of money market funds exist to meet differing investor needs. “Prime money market funds” hold a variety of taxable short-term obligations issued by corporations and banks, as well as repurchase agreements and asset-backed commercial paper.¹⁵ “Government money market funds,” which are currently the largest category of money market fund, almost exclusively hold obligations of the U.S. Government, including obligations of the U.S. Treasury and Federal agencies and instrumentalities, as well as repurchase agreements collateralized by government securities.¹⁶ Compared to prime funds, government money market funds generally offer greater safety of principal but historically have paid lower yields. “Tax-exempt money market funds” (or “municipal money market funds”) primarily hold obligations of state and local governments and their instrumentalities, and pay interest that is generally exempt from Federal income tax for individual taxpayers.¹⁷ Within the prime and tax-exempt money market fund categories, some funds are “retail” funds and others are “institutional” funds. Retail money market funds are held only by natural persons, and institutional funds can be held by a wider range of investors, such as corporations, small businesses, and retirement plans.¹⁸

To some extent, different types of money market funds are subject to different requirements under rule 2a-7. One primary example is a fund’s approach to valuation and

¹⁵ Commission staff regularly publish comprehensive data regarding money market funds on the Commission’s website, *available at* <https://www.sec.gov/divisions/investment/mmf-statistics.shtml>. This data includes information about the monthly holdings of prime money market funds by type of security. Staff reports and other staff documents (including those cited herein) represent the views of Commission staff and are not a rule, regulation, or statement of the Commission. The Commission has neither approved nor disapproved the content of these documents and, like all staff statements, they have no legal force or effect, do not alter or amend applicable law, and create no new or additional obligations for any person.

¹⁶ Some government money market funds generally invest at least 80% of their assets in U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury securities and are called “Treasury money market funds.”

¹⁷ In this release, we also use the term “non-government money market fund” to refer to prime and tax-exempt money market funds.

¹⁸ A retail money market fund is defined as a money market fund that has policies and procedures reasonably designed to limit all beneficial owners of the fund to natural persons. *See* 17 CFR 270.2a-7(a)(21) (rule 2a-7(a)(21)).

pricing. Government and retail money market funds can rely on valuation and pricing techniques that generally allow them to sell and redeem shares at a stable share price, typically \$1.00, without regard to small variations in the value of the securities in their portfolios.¹⁹ If the fund's stable share price and market-based value per share deviate by more than one-half of 1%, the fund's board may determine to adjust the fund's share price below \$1.00, which is also colloquially referred to as "breaking the buck."²⁰ Institutional prime and institutional tax-exempt money market funds, however, are required to use a "floating" NAV per share to sell and redeem their shares, based on the current market-based value of the securities in their underlying portfolios rounded to the fourth decimal place (*e.g.*, \$1.0000). These institutional funds are required to use a floating NAV because their investors have historically made the heaviest redemptions in times of market stress and are more likely to act on the incentive to redeem if a fund's stable price per share is higher than its market-based value.²¹

As of March 2023, there were approximately 294 money market funds registered with the Commission, and these funds collectively held over \$5.7 trillion of assets.²² The vast majority of these assets are held by government money market funds (\$4.4 trillion), followed by prime money market funds (\$1 trillion) and tax-exempt money market funds (\$119 billion).²³ Of prime money market funds' assets, approximately 44% are held by retail prime money market funds, with the remaining assets almost evenly split between institutional prime money market funds that are offered to the public and institutional prime money market funds that are not offered to

¹⁹ See Proposing Release, *supra* note 6, at n.10 (discussing amortized cost method and penny rounding cost method); see also 17 CFR 270.2a-7(c)(1)(i) and (g)(1) and (2). Throughout this release, we generally use the term "stable share price" or "stable NAV" to refer to the stable share price that these money market funds seek to maintain and compute for purposes of distribution, redemption, and repurchases of fund shares.

²⁰ These funds must compare their stable share price to the market-based value per share of their portfolios at least daily.

²¹ See Proposing Release, *supra* note 6, at n.12.

²² Money Market Fund Statistics, Form N-MFP Data, period ending Mar. 2023, *available at*: <https://www.sec.gov/files/mmf-statistics-2023-03.pdf>. This data excludes "feeder" funds to avoid double counting assets.

²³ *Id.*

the public.²⁴ The vast majority of tax-exempt money market fund assets are held by retail funds.

The Commission adopted rule 2a-7 in 1983 and has amended the rule several times over the years, including in 2010 and 2014, in response to market events that have highlighted money market fund vulnerabilities.²⁵ Among other things, these past reforms introduced minimum daily and weekly liquid asset requirements, provided for redemption gates and liquidity fees as available tools when a fund's liquidity drops below a threshold, required institutional money market funds to use floating NAVs, and improved transparency through reporting and website posting requirements.²⁶

In addition to reforms for money market funds, in 2014 the Commission introduced new reporting requirements for large advisers of liquidity funds on Form PF to better align reporting obligations of advisers regarding private liquidity funds to those of money market funds, in order to help the Commission have a more complete picture of the broader short-term financing market.²⁷ Liquidity funds follow similar investment strategies as money market funds, but investment advisers are not required to register liquidity funds as investment companies under the Act. Liquidity funds are a relatively small but important category of private funds due to the role they play along with money market funds as sources, and users, of liquidity in markets for short-term financing.²⁸ Similar to money market funds, liquidity funds are managed with the goal of maintaining a stable net asset value or minimizing principal volatility for investors. However, liquidity funds are not required to comply with the risk-limiting conditions of rule 2a-7, such as

²⁴ Some asset managers establish privately offered money market funds to manage cash balances of other affiliated funds and accounts.

²⁵ See Proposing Release, *supra* note 6, at n.16 and accompanying text (providing more detail related to previous Commission actions and government intervention following the 2008 financial crisis).

²⁶ Money Market Fund Reform, Investment Company Act Release No. 29132 (Feb. 23, 2010) [75 FR 10060 (Mar. 4, 2010)] (“2010 Adopting Release”); Money Market Fund Reform; Amendments to Form PF, Investment Company Act Release No. 31166 (July 23, 2014) [79 FR 47735 (Aug. 14, 2014)] (“2014 Adopting Release”).

²⁷ Generally, investment advisers registered (or required to be registered) with the Commission with at least \$150 million in private fund assets under management must file Form PF.

²⁸ As of Sept. 2022, there were 79 liquidity funds reported on Form PF with \$336 billion in gross assets under management.

the restrictions on the maturity, diversification, credit quality, and liquidity of investments.

Consequently, liquidity funds may take on greater risks and, as a result, may be more sensitive to market stress relative to money market funds.

B. March 2020 Market Events and Need for Reform

As discussed in the Proposing Release, in March 2020, growing economic concerns about the impact of the COVID-19 pandemic led investors to reallocate their assets into cash and short-term government securities.²⁹ Institutional investors, in particular, sought highly liquid investments, including government money market funds.³⁰ In contrast, institutional prime and institutional tax-exempt money market funds experienced outflows beginning the week of March 9, 2020, which accelerated the following week.³¹ Outflows from retail prime and retail tax-exempt funds began the week of March 16, a week after outflows in institutional funds began.

During the two-week period of March 11 to 24, publicly offered institutional prime funds had a 30% redemption rate (about \$100 billion), which included outflows of approximately 20% of assets during the week of March 20 alone.³² In contrast, privately offered institutional prime funds had redemptions of 3% of assets during the week of March 20, and lost approximately 6% of their total assets (\$17 billion) from March 9 through 20. Retail prime funds had outflows of approximately 11% of their total assets (\$48 billion) in the last three weeks of March 2020. Outflows from tax-exempt money market funds, which are mostly retail funds, were approximately 8% of their total assets (\$12 billion) from March 12 through 25.

²⁹ See SEC Staff Report on U.S. Credit Markets Interconnectedness and the Effects of the COVID-19 Economic Shock (Oct. 2020) (“SEC Staff Interconnectedness Report”), at 2, *available at* https://www.sec.gov/files/US-Credit-Markets_COVID-19_Report.pdf.

³⁰ More specifically, government money market funds had record inflows of \$838 billion in Mar. 2020 and an additional \$347 billion of inflows in Apr. 2020. *See id.* at 25.

³¹ *Id.*

³² *See* Proposing Release, *supra* note 6, at n.30.

The Proposing Release discussed the potential factors that incentivized investors to redeem from certain money market funds in March 2020.³³ These factors included concerns about the potential imposition of redemption gates or liquidity fees based on observed declines in some funds' weekly liquid assets, general concerns about declining fund liquidity, general uncertainty related to a global health crisis and fears of associated economic downturns, and the need to meet near-term cash needs unrelated to the market stress. The Proposing Release also discussed data regarding the relationship between a fund's weekly liquid asset levels and the amount of outflows it experienced in March 2020. The data showed that funds with lower weekly liquid asset levels were more likely to have significant outflows in March 2020, but some funds with higher levels of liquidity also experienced large outflows.³⁴

These outflows caused some money market funds to engage in greater than normal selling activity in short-term funding markets which, when combined with similar selling activity from other market participants such as hedge funds and bond mutual funds, both contributed to, and was impacted by, stress in short-term funding markets.³⁵ In markets for private short-term debt instruments, such as commercial paper and certificates of deposit, conditions significantly deteriorated in the second week of March 2020. These markets, in which prime money market funds and other participants invest, essentially became "frozen" in March 2020, making it more difficult to sell these instruments, which have limited secondary trading even in normal market conditions.³⁶ Similarly, stresses in short-term municipal markets contributed to pricing pressures and outflows for tax-exempt money market funds which, in turn, contributed to increased stress in municipal markets.³⁷ One factor that appears to have contributed to money market funds' sales of long-term portfolio securities is the incentive fund managers had to maintain weekly liquid

³³ *Id.*, at n.42 and accompanying discussion.

³⁴ *Id.*, at n.44.

³⁵ *See* Proposing Release, *supra* note 6, at n.54 and accompanying discussion.

³⁶ *Id.*

³⁷ *Id.*

assets above 30% in an effort to avoid investors' concerns about the possibility of redemption gates or liquidity fees under our current rule.³⁸

On March 18, 2020, the Federal Reserve, with the approval of the Department of the Treasury, broadened its program of support for the flow of credit to households and businesses by taking steps to enhance the liquidity and functioning of money markets with the establishment of the Money Market Mutual Fund Liquidity Facility ("MMLF"). The MMLF provided loans to financial institutions on advantageous terms to purchase securities from money market funds that were raising liquidity, thereby helping enhance overall market functioning and credit provisions to the broader economy.³⁹ MMLF utilization reached a peak of just over \$50 billion in early April 2020, or about 5% of net assets in prime and tax-exempt money market funds at the time.⁴⁰ Along with other Federal Reserve actions and programs to support the short-term funding markets, the MMLF had the effect of significantly slowing outflows from prime and tax-exempt money market funds.⁴¹ The MMLF ceased providing loans in March 2021.

Commenters generally agreed that the growing economic concerns related to the impact of the COVID-19 pandemic led investors to seek liquidity in the form of cash and short-term government securities in March 2020, leading to outflows from prime money market funds and significant inflows to government money market funds.⁴² Commenters also acknowledged that the markets for private short-term debt instruments, such as commercial paper and certificates of

³⁸ *Id.*, at n.77 and accompanying discussion.

³⁹ Information about the MMLF is available on the Federal Reserve's website at <https://www.federalreserve.gov/monetarypolicy/mmlf.htm>. The Federal Reserve Bank of Boston operated the MMLF.

⁴⁰ *See* Proposing Release, *supra* note 6, at n.36.

⁴¹ *Id.*, at n.37.

⁴² *See, e.g.*, ICI Comment Letter; Comment Letter of The Vanguard Group, Inc. (Apr. 11, 2022) ("Vanguard Comment Letter"); Comment Letter of Professors Samuel G. Hanson, David S. Scharfstein, and Adi Sunderam, Harvard Business School (Apr. 11, 2022) ("Prof. Hanson *et al.* Comment Letter"); Comment Letter of Blackrock (Apr. 11, 2022) ("BlackRock Comment Letter"); Comment Letter of the CFA Institute (Apr. 11, 2022) ("CFA Comment Letter").

deposit, significantly deteriorated during this period.⁴³ However, some commenters questioned the nexus between the liquidity crisis in the short-term funding markets and the outflows from prime money market funds, asserting that events in the money market fund market were not a significant cause of the liquidity issues in the short-term funding markets in March 2020.⁴⁴ Accordingly, some commenters suggested that any reform exclusive to money market funds by themselves will likely not address the broader liquidity challenges in the short-term funding markets.⁴⁵ Going further, a few commenters expressed that the proposed reforms would have negative impacts to the short-term funding markets because they would reduce the demand for prime money market funds, thereby reducing capacity in the short-term funding markets.⁴⁶ Some of these commenters encouraged the Commission, and policymakers more generally, to re-examine the short-term funding markets and the various events surrounding the volatility in March 2020, and to consider available tools other than reforms to the money market fund regulatory framework, that would improve resiliency in this segment of our markets.⁴⁷ Conversely, other commenters asserted that liquidity issues with money market funds served as a source of significant contagion that imperiled the short-term markets broadly and forced government intervention.⁴⁸ Some of these commenters suggested that the Commission should consider more aggressive reforms to solve the unique problems presented by money market

⁴³ See, e.g., Comment Letter of Invesco Ltd. (Apr. 11, 2022) (“Invesco Comment Letter”); Vanguard Comment Letter; BlackRock Comment Letter (asserting that they struggled to find bids from dealer banks in the secondary market for much of the commercial paper, bank certificates of deposits, or municipal debt they were holding).

⁴⁴ See, e.g., ICI Comment Letter; Federated Hermes Comment Letter I; Invesco Comment Letter; Vanguard Comment Letter; BlackRock Comment Letter; Healthy Markets Association Comment Letter.

⁴⁵ See, e.g., ICI Comment Letter; Federated Hermes Comment Letter I; Invesco Comment Letter; Vanguard Comment Letter; BlackRock Comment Letter.

⁴⁶ See, e.g., SIFMA AMG Comment Letter; Comment Letter of J.P. Morgan Asset Management (Apr. 11, 2022) (“JP Morgan Comment Letter”).

⁴⁷ See, e.g., JP Morgan Comment Letter; Federated Hermes Comment Letter I; ICI Comment Letter (recommending adjusting bank regulations to enable banks and their dealers to expand their balance sheets to provide market liquidity during periods of market stress without materially reducing the overall resilience of those firms).

⁴⁸ See, e.g., Comment Letter of Better Markets (Apr. 11, 2022) (“Better Markets Comment Letter”); CFA Comment Letter.

funds, mainly that they are hybrid instruments that embody elements of both securities investments and banking products that are treated as cash-like by investors.⁴⁹

We understand that money market funds are not the totality of the short-term funding markets and that the reforms discussed in this adopting release may not solve all future issues connected to the short-term funding markets. However, we believe the events of March 2020 evidence that money market funds need better functioning tools for managing through stress while mitigating harm to shareholders. Specifically, in addition to requiring higher liquidity minimums to prepare for significant and rapid investor redemptions, funds need to be able to use that liquidity when such redemptions occur. In addition, to prevent redeeming shareholders from diluting the interests of remaining shareholders by removing liquidity from the fund in times of market stress, when liquidity in underlying short-term funding markets is scarce and costly, funds need tools to ensure that liquidity costs are fairly allocated to redeeming investors. Moreover, while the period of market stress in March 2020 was relatively brief, it is important to consider that future stressed periods—whether specific to certain money market funds or the short-term funding markets more generally—may be more protracted or more severe than in March 2020, particularly absent Federal Reserve action. We believe that these needs for better functioning tools to manage through stress while mitigating harm to shareholders can be met while preserving the benefits that investors have come to expect from money market funds. Accordingly, we are adopting amendments to rule 2a-7 and related reporting and registration forms that are designed to achieve these key objectives and to reflect our experience with the rule since it was initially adopted in 1983.⁵⁰

⁴⁹ See, e.g., Better Markets Comment Letter; Prof. Hanson *et al.* Comment Letter.

⁵⁰ See generally Valuation of Debt Instruments and Computation of Current Price Per Share by Certain Open-End Investment Companies (Money Market Funds), Investment Company Act Release No. 13380 (July 11, 1983) [48 FR 32555 (July 18, 1983)].

II. DISCUSSION

A. Amendments to Remove the Tie Between the Weekly Liquid Asset Threshold and Redemption Gates and Liquidity Fees

1. Unintended Effects of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates

Following amendments to rule 2a-7 in 2014, a money market fund has the ability to impose liquidity fees or redemption gates (generally referred to as “fees and gates”) after crossing a specified liquidity threshold.⁵¹ A money market fund may impose a liquidity fee of up to 2%, or temporarily suspend redemptions for up to 10 business days in a 90-day period, if the fund’s weekly liquid assets fall below 30% of its total assets and the fund’s board of directors determines that imposing a fee or gate is in the fund’s best interests.⁵² Additionally, a non-government money market fund is required to impose a liquidity fee of 1% on all redemptions if its weekly liquid assets fall below 10% of its total assets, unless the board of directors of the fund determines that imposing such a fee would not be in the best interests of the fund.⁵³ Separately, a money market fund is required to provide daily disclosure of the percentage of its total assets invested in weekly liquid assets (as well as daily liquid assets) on its website to provide transparency to investors and increase market discipline.⁵⁴

Money market fund fees and gates below these thresholds were intended to serve as redemption restrictions that would provide a “cooling off” period to temper the effects of a short-term investor panic and preserve liquidity levels in times of market stress, as well as better

⁵¹ Government funds are permitted, but not required, to impose fees and gates, as discussed below. *See* 17 CFR 270.2a-7(c)(2); 2014 Adopting Release, *supra* note 26.

⁵² If, at the end of a business day, a fund has invested 30% or more of its total assets in weekly liquid assets, the fund must cease charging the liquidity fee (up to 2%) or imposing the redemption gate, effective as of the beginning of the next business day. *See* 17 CFR 270.2a-7(c)(2)(i).

⁵³ The board also may determine that a lower or higher fee would be in the best interests of the fund. *See* 17 CFR 270.2a-7(c)(2)(ii)(A).

⁵⁴ 17 CFR 270.2a-7(h)(10)(ii); 2014 Adopting Release, *supra* note 26, at section III.E.9.a.

allocate the costs of providing liquidity to redeeming investors.⁵⁵ However, these provisions did not achieve these objectives during the period of market stress in March 2020. As discussed in the Proposing Release, evidence suggests that in March 2020, even though no money market fund imposed a liquidity fee or gate, the possibility of their imposition after crossing the publicly disclosed 30% weekly liquid asset threshold appears to have contributed to investors' incentives to redeem from prime money market funds.⁵⁶ The presence of this threshold appears to have increased investor redemption activity as prime and tax-exempt money market funds approached the 30% weekly liquid asset level.⁵⁷ Further, this liquidity threshold also appeared to affect money market fund managers' behavior in March 2020 and contributed to incentives for money market fund managers to maintain weekly liquid asset levels above a 30% weekly liquid asset threshold, rather than use those assets to meet redemptions.⁵⁸ Thus, contrary to its intended benefit, this threshold appeared to heighten prime and tax-exempt money market funds' susceptibility to heavy redemptions as funds' publicly disclosed weekly liquid assets approached it and increased the lack of liquidity in underlying short-term funding markets in March 2020.

In addition, as discussed in the Proposing Release, it appears that money market fund investors are more sensitive to the possibility of redemption gates than the possibility of liquidity fees.⁵⁹ While liquidity fees impose a cost for an investor to redeem, gates outright stop redemptions for the duration of the gate. Money market fund investors—who typically invest in money market funds for cash management purposes—are generally sensitive to being unable to

⁵⁵ See 2014 Adopting Release, *supra* note 26, at section III.A.

⁵⁶ See Proposing Release, *supra* note 6, at section I.B.

⁵⁷ See *id.*

⁵⁸ See *id.* See also ICI Comment Letter; SIFMA AMG Comment Letter.

⁵⁹ See Proposing Release, *supra* note 5, at nn. 75-76 and accompanying text (discussing comment letters that expressed views that the possibility of redemption gates was a greater concern for investors, particularly institutional investors, in Mar. 2020 than the possibility of liquidity fees and that retail investors appeared less sensitive to fees and gates than institutional investors).

access their investments for a period of time and have a tendency to redeem from such funds preemptively if they fear a gate may be imposed.

Many commenters agreed with the Commission’s assessment that the regulatory link between a known liquidity threshold and the imposition of fees and gates contributed to investors’ incentives to redeem from money market funds in March 2020.⁶⁰ Many commenters also agreed with the Commission’s assessment that the weekly liquid asset threshold also contributed to incentives for managers to avoid falling below this threshold.⁶¹ One commenter suggested that removing the regulatory link between weekly liquid assets and redemption gates (and liquidity fees) would free up an additional 30% of liquidity that funds could use in a crisis similar to March 2020.⁶²

Several commenters stated that the potential imposition of redemption gates in particular, as opposed to liquidity fees, drove instability and redemptions in March 2020.⁶³ For example, one commenter suggested that the mere possibility that fund boards may impose gates was a key factor that contributed significantly to the stresses experienced by publicly offered institutional prime funds in March 2020.⁶⁴ Another commenter stated that, based on a survey of institutional investor clients, investors were particularly concerned about gates and perceived the 30% weekly liquid asset threshold as a “bright line” not to be crossed.⁶⁵ An additional commenter stated that,

⁶⁰ See, e.g., Comment Letter of Morgan Stanley Investment Management Inc. (Apr. 8, 2022) (“Morgan Stanley Comment Letter”); ICI Comment Letter; Comment Letter of Northern Trust Asset Management (Mar. 24, 2022) (“Northern Trust Comment Letter”); Fidelity Comment Letter; *see also* Proposing Release, *supra* note 6, at section II.A.1 (“Available evidence, supported by many comment letters in response to the Commission’s request for comment [] suggested that funds’ incentives to maintain weekly liquid assets above the 30% threshold were directly tied to investors’ concerns about the possibility of redemption gates and liquidity fees under our rules if a fund drops below that threshold.”).

⁶¹ See, e.g., ICI Comment Letter, Comment Letter of T. Rowe Price (Apr. 11, 2022) (“T. Rowe Comment Letter”); JP Morgan Comment Letter.

⁶² See Federated Hermes Comment Letter I.

⁶³ See, e.g., Fidelity Comment Letter; Northern Trust Comment Letter; Comment Letter of the Institute of International Finance (Apr. 11, 2022) (“IIF Comment Letter”); ICI Comment Letter.

⁶⁴ See Fidelity Comment Letter.

⁶⁵ See JP Morgan Comment Letter.

based on data and discussions with its member funds, the possibility of a gate especially caused investors in March 2020 to redeem heavily.⁶⁶

Thus, based on available evidence and as suggested by many commenters, the weekly liquid asset threshold for consideration of fees and gates appear to have potentially increased the risks of investor runs without providing benefits to money market funds as intended by the Commission. In addition, money market fund investors have demonstrated particular sensitivity to the possibility of gates and the corresponding lack of access to their investments, and these concerns appear to have incentivized redemptions in March 2020 more so than any concerns about the possibility of fees. Accordingly, after considering the comments received, we are adopting amendments to the fee and gate provisions in rule 2a-7 to remove the regulatory link between weekly liquid assets and fees and gates. As discussed below, we are amending rule 2a-7 to remove gate provisions altogether and amending the liquidity fee structure to remove weekly liquid asset-linked thresholds and implement a modified liquidity fee framework that will provide for both mandatory and discretionary liquidity fees. We believe these changes will provide more effective tools for money market funds to use to mitigate short-term investor panic and preserve liquidity levels in times of market stress, as well as better allocate the costs of providing liquidity to redeeming investors.

2. Removal of Redemption Gates from Rule 2a-7

We are adopting, as proposed, the removal of money market funds' ability through rule 2a-7 to temporarily suspend redemptions (*i.e.*, impose a "gate").⁶⁷ In the Proposing Release, we discussed our concern that gates may not be an effective tool for money market funds to stem heavy redemptions in times of stress due to money market fund investors' general sensitivity to being unable to access their investments for a period of time and tendency to redeem from funds preemptively if they fear a gate may be imposed. We believe that removing gate provisions

⁶⁶ See ICI Comment Letter.

⁶⁷ See Proposing Release, *supra* note 6, at section II.A.2.

altogether from rule 2a-7 will reduce the risk of investor runs on money market funds during periods of market stress. Money market funds will continue to be able to impose permanent gates to facilitate an orderly liquidation of a fund pursuant to 17 CFR 270.22e-3 (“rule 22e-3”), and we are not adopting any changes to that rule.⁶⁸

Many commenters generally supported the proposal to remove redemption gates in rule 2a-7.⁶⁹ Several of these commenters stated that use of rule 22e-3 to suspend redemptions in connection with a fund liquidation would be sufficient to address scenarios in which a fund may need to suspend redemptions.⁷⁰ One such commenter suggested that any money market fund that needed to impose a gate would likely need to fully liquidate, making rule 22e-3 sufficient for these purposes.⁷¹

Some commenters supported removing the tie between the weekly liquid asset threshold and a fund’s ability to impose a gate but suggested that gates could still be a useful tool outside of a fund liquidation. These commenters suggested that fund boards should have broader discretion to impose gates without linkage to a weekly liquid asset threshold.⁷² Some commenters suggested that the rule should permit fund boards to impose a gate if the board determines a gate is in the best interests of the fund and its shareholders, subject to certain policies and procedures, disclosure, and reporting requirements.⁷³ Another commenter suggested

⁶⁸ See 17 CFR 270.22e-3. Rule 22e-3 under the Act permits money market funds to suspend redemptions and postpone the payment of proceeds in connection with a liquidation upon certain declines in liquidity or deviations between market-based and stable prices, board approval of liquidation, and notice to the Commission.

⁶⁹ See, e.g., Western Asset Comment Letter; Morgan Stanley Comment Letter; Vanguard Comment Letter; CFA Comment Letter; SIFMA AMG Comment Letter; Comment Letter of the Committee on Capital Markets Regulation (Apr. 11, 2022) (“CCMR Comment Letter”); T. Rowe Comment Letter.

⁷⁰ See Allspring Funds Comment Letter; CFA Comment Letter; IIF Comment Letter; Northern Trust Comment Letter; SIFMA AMG Comment Letter.

⁷¹ See Invesco Comment Letter.

⁷² See Federated Hermes Comment Letter I; Comment Letter of Federated Hermes Funds Board of Trustees (Apr. 11, 2022) (“Federated Hermes Fund Board Comment Letter”); Comment Letter of the Cato Inst. (Feb. 10, 2022) (“Cato Inst. Comment Letter”).

⁷³ See Federated Hermes Comment Letter I (stating that funds should be required to report the basis for imposing temporary gates to the Commission); Federated Hermes Fund Board Comment Letter.

that fund boards should have complete discretion with respect to imposing gates but that the SEC should require relevant disclosures.⁷⁴

After considering these comments, we continue to believe that the removal of money market funds' ability to impose gates through rule 2a-7 is appropriate.⁷⁵ By removing the gate provision, either with or without an associated liquidity threshold, we seek to limit the potential for investor uncertainty and de-stabilizing preemptive investor redemption behavior related to the potential use of gates during stress events as well as to better encourage funds to more effectively use their existing liquidity buffers in times of stress. As discussed above, rather than providing an effective tool for money market funds to manage redemption pressures during a period of stress, the potential availability of gates under prescribed parameters exacerbated the redemption pressures experienced by some funds during March 2020.

Retaining a gate provision under rule 2a-7 without an associated liquidity threshold, as suggested by some commenters, could result in continuing investor uncertainty and may contribute to preemptive investor redemption behavior during stress events. In normal and stressed markets, shareholders may need or want to access their funds for various reasons, including to meet near-term cash needs. When in place, a gate fully inhibits the redeemability of the money market fund shares for the duration of the gate, thereby blocking shareholders' access to their shares. We believe this complete halt to redemptions, even if temporary, has the potential to significantly incentivize preemptive redemptions. As discussed above, several commenters stated that fear of gates in particular contributed to redemptions in March 2020. Removing the link to a publicly disclosed liquidity threshold seemingly would expand the current gate provisions under rule 2a-7, potentially increasing investor uncertainty regarding when a fund may impose a gate. Even if such action by a money market fund board is unlikely to occur, as

⁷⁴ See Cato Inst. Comment Letter.

⁷⁵ As proposed, in addition to removing the gate provisions from rule 2a-7, we are also removing associated disclosure and reporting requirements about a fund's potential or actual imposition of gates. See Items 4(b)(1)(ii) and 16(g) of current Form N-1A; Parts F and G of current Form N-CR.

suggested by some commenters,⁷⁶ the mere possibility of a gate would persist and thus investor uncertainty and fear may remain, particularly when there are signs that a fund or short-term funding markets are under stress. Accordingly, we are removing the gate provision from rule 2a-7 to avoid this unintended outcome.

In light of the proposed removal of gates under rule 2a-7, some commenters suggested additional amendments to rule 22e-3. This rule generally allows a money market fund to suspend redemptions if, among other conditions, (1) the fund has invested less than 10% of its total assets in weekly liquid assets or, in the case of a government or retail money market fund, the fund's market-based price per share has deviated or is likely to deviate from its stable price, and (2) the fund's board has approved the fund's liquidation. Some commenters suggested that the SEC remove the weekly liquid asset threshold enumerated in rule 22e-3 and give fund boards more flexibility to approve liquidations.⁷⁷ One of these commenters suggested that the weekly liquid asset threshold in rule 22e-3 would not remain meaningful because of the Commission's proposal to remove the liquidity fee provisions from rule 2a-7, including the default liquidity fee provision for non-government money market funds with weekly liquid assets that fall below 10%.⁷⁸

We do not agree that expanding the availability of rule 22e-3 is appropriate. Rule 22e-3 provides a mechanism for a money market fund to permanently suspend redemptions when the fund is under significant stress to facilitate an orderly liquidation. While the amendments in this release include the removal of a default liquidity fee provision for non-government money market funds linked to a 10% weekly liquid asset threshold, we do not agree with the contention that the significance of the 10% weekly liquid asset threshold is thereby meaningfully reduced

⁷⁶ See, e.g., Comment Letter of Mutual Fund Directors Forum (Apr. 11, 2022) ("Mutual Fund Directors Forum Comment Letter").

⁷⁷ See Allspring Funds Comment Letter; Comment Letter of Dechert LLP (Apr. 11, 2022) ("Dechert Comment Letter").

⁷⁸ See Dechert Comment Letter.

with respect to rule 22e-3. Due to the absolute and significant nature of a permanent suspension of redemptions and liquidation, the conditions in rule 22e-3, including the 10% weekly liquid asset threshold, limit the fund's ability to permanently suspend redemptions to circumstances that present a significant risk of a run on the fund and potential harm to shareholders.⁷⁹ We continue to believe that where a fund's weekly liquid assets fall below 10%, the fund is reasonably understood to be experiencing significant stress and circumstances may present a significant risk of a run on the fund and potential harm to shareholders. In these circumstances, the ability of the board of directors of such fund to suspend redemptions in light of a decision to liquidate can help address the significant run risk and reduce potential harm to shareholders. Where a money market fund is unable to avail itself of a permanent suspension of redemptions under rule 22e-3, the fund may suspend redemptions after obtaining an exemptive order from the Commission.⁸⁰ Accordingly, we are not adopting amendments to rule 22e-3.

B. Liquidity Fee Requirement

1. Determination to Adopt a Liquidity Fee Requirement

After considering comments, we are adopting a mandatory liquidity fee framework for institutional prime and institutional tax-exempt funds instead of the proposed swing pricing requirement. We believe the mandatory liquidity fee will reduce operational burdens associated with swing pricing while still achieving many of the benefits we were seeking with swing pricing by allocating liquidity costs to redeeming investors in stressed periods. In addition, we are adopting a discretionary liquidity fee for all non-government money market funds so that liquidity fees are an available tool for such funds to manage redemption pressures when the mandatory fee does not apply. Whether the fee is mandatory or discretionary, we are, as proposed, removing from rule 2a-7 the tie between liquidity fees and a fund's weekly liquid asset levels to avoid predictable triggers that may incentivize investors to preemptively redeem to

⁷⁹ See 2010 Adopting Release, *supra* note 26, at section II.H.

⁸⁰ 15 U.S.C. 80a-22(e).

avoid incurring fees.⁸¹ This liquidity fee framework, independent of a predictable threshold for its application, achieves the intended benefits of the current liquidity fee regime by allocating liquidity costs to redeeming shareholders in times of stress while, in contrast to the current rule, avoiding incentives for preemptive redemptions associated with weekly liquid asset triggers. An approach solely based on liquidity fees, as opposed to gates, does not present the same concerns about incentivizing redemptions that exist under current rule 2a-7. As discussed, money market fund investors seemingly have been more concerned about the possibility of redemption gates than the possibility of liquidity fees.⁸² This change is designed to increase the resilience of money market funds.

The Commission proposed a swing pricing requirement under which an institutional prime or institutional tax-exempt fund would downwardly adjust its current NAV per share by a swing factor when a fund has net redemptions. The swing factor adjustment would reflect spread and transaction costs and, if net redemptions exceeded 4% of the fund's net assets, then the swing factor would also include market impact costs. The Commission also proposed to remove the liquidity fee provision in rule 2a-7, which conditions the use of liquidity fees upon declines in fund liquidity below identified, predictable thresholds, and to specify that money market funds could instead impose liquidity fees under 17 CFR 270.22c-2 ("rule 22c-2") at their discretion.⁸³

⁸¹ By "predictable," we mean that an investor can use available information to predict whether a fee will apply on a given day or on future days. In the case of weekly liquid assets, an investor can observe the weekly liquid asset level disclosed for the prior day and use that information to predict whether the fund will cross the weekly liquid asset threshold in the near term. In the case of the net redemption threshold we are adopting for mandatory liquidity fees, while an investor can observe net flows for the prior day, that flow information does not necessarily predict the fund's flows for that day or future days, as net flows depend on independent investment decisions made by a large number of investors with differing needs and considerations. *See infra* section IV.C.4.a.i.

⁸² *See supra* section II.A.1.

⁸³ *See* 17 CFR 270.22c-2 (rule 22c-2 under the Investment Company Act) (providing that an open-end fund may impose a redemption fee, not to exceed 2% of the value of the shares redeemed, upon the determination by the fund's board of directors that such fee is necessary or appropriate to recoup for the fund the costs it may incur as a result of those redemptions or to otherwise eliminate or reduce so far as practicable any dilution of the value of the outstanding securities issued by the fund).

Many commenters expressed broad concerns about the swing pricing proposal and its potential effect on institutional money market funds and investors. Several commenters stated that the proposed swing pricing requirement was incompatible with how money market funds operate and manage liquidity, which may limit the utility of these funds as cash management vehicles.⁸⁴ For instance, commenters expressed concern that swing pricing may inhibit a fund’s ability to offer features such as same-day settlement and multiple NAV strikes per day due to concerns that swing pricing would delay a fund’s ability to determine its NAV.⁸⁵ Some commenters suggested that swing pricing may assume a greater degree of liquidity costs than funds incur to meet redemptions because money market funds generally satisfy redemptions through maturing assets, rather than secondary market selling activity, and are equipped to handle relatively large redemptions with available liquidity.⁸⁶ Some commenters stated that swing pricing would introduce greater volatility in fund share prices and performance, which they asserted would reduce investor demand for institutional money market funds.⁸⁷ In addition, some commenters indicated that the operational costs of the proposed swing pricing requirement could cause some sponsors to eliminate their institutional prime and institutional tax-exempt money market funds, particularly smaller funds, and reduce money market fund assets.⁸⁸ In light

⁸⁴ See, e.g., Comment Letter of Independent Directors Council (Apr. 11, 2022) (“IDC Comment Letter”); Mutual Fund Directors Forum Comment Letter; Comment Letter of The Bank of New York Mellon (Apr. 11, 2022) (“BNY Mellon Comment Letter”); Fidelity Comment Letter; Comment Letter of State Street Global Advisors (Apr. 11, 2022) (“State Street Comment Letter”); Comment Letter of Federated Hermes, Inc. (Apr. 11, 2022) (“Federated Hermes Comment Letter II”) (letter primarily focused on the proposed swing pricing requirement).

⁸⁵ See, e.g., Comment Letter of Capital Group Companies, Inc. (Apr. 11, 2022) (“Capital Group Comment Letter”); State Street Comment Letter; ICI Comment Letter; Federated Hermes Comment Letter II; SIFMA AMG Comment Letter; BNY Mellon Comment Letter.

⁸⁶ See, e.g., SIFMA AMG Comment Letter; Comment Letter of American Bankers Association (Apr. 11, 2022) (“ABA Comment Letter I”); Invesco Comment Letter; Fidelity Comment Letter; Allspring Funds Comment Letter.

⁸⁷ See SIFMA AMG Comment Letter; Western Asset Comment Letter; *see also* Northern Trust Comment Letter; Federated Hermes Comment Letter II.

⁸⁸ See, e.g., JP Morgan Comment Letter; BlackRock Comment Letter; IDC Comment Letter; Comment Letter of U.S. Chamber of Commerce, Center for Capital Markets Competitiveness (Apr. 11, 2022) (“US Chamber of Commerce Comment Letter”); CCMR Comment Letter; Comment Letter of Americans for Tax Reform (Apr. 9, 2022) (“Americans for Tax Reform Comment Letter”); Northern Trust Comment Letter.

of these considerations, some commenters suggested that swing pricing is not an appropriate tool for money market funds and stated that a liquidity fee framework would be better suited to the structure and characteristics of money market funds, if the Commission determines that an anti-dilution tool is necessary for these funds.⁸⁹

Commenters expressed different views on whether the proposed swing pricing requirement would achieve the Commission’s goal of ensuring that the costs stemming from net redemptions are fairly allocated and do not give rise to dilution or a potential first-mover advantage, particularly in times of stress. A few commenters were supportive of swing pricing and suggested that it would enhance the resilience of money market funds.⁹⁰ Many commenters, however, expressed concern that swing pricing would not achieve the Commission’s goals of allocating liquidity costs and reducing dilution and potential first-mover advantages. Some commenters suggested that redemptions are not motivated by a first-mover advantage and that liquidity, rather than avoiding dilution from other shareholders’ redemptions, was the motivation for redemptions in March 2020.⁹¹ Some commenters suggested that swing pricing would not address first-mover issues because investors would not know at the time they submitted

⁸⁹ See, e.g., ICI Comment Letter (suggesting that, if data and analysis show that an anti-dilution mechanism is necessary for public institutional prime and tax-exempt funds, modifying and leveraging the existing fee framework would be less problematic than swing pricing and could serve the Commission’s goals in a way that avoids imposing unnecessary operational costs); Invesco Comment Letter; SIFMA AMG Comment Letter (suggesting that, to the extent the Commission continues to believe, based on data driven findings and analysis, that an additional anti-dilution tool is necessary, the Commission consider liquidity fees instead of swing pricing); Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Invesco Comment Letter; Comment Letter of The Charles Schwab Corporation (Apr. 11, 2022) (“Schwab Comment Letter”); Morgan Stanley Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter; State Street Comment Letter; Western Asset Comment Letter; IIF Comment Letter; Allspring Funds Comment Letter. Some of the comments received with respect to the swing pricing proposal are also relevant to issues implicated by the liquidity fee mechanism that we are adopting. We primarily discuss those comments below in the relevant sections addressing the amended liquidity fee framework.

⁹⁰ See, e.g., Americans for Financial Reform Comment Letter; CFA Comment Letter; Comment Letter of Systemic Risk Council (Apr. 15, 2022) (“Systemic Risk Council Comment Letter”); Better Markets Comment Letter; Comment Letter of Chris Barnard (Oct. 19, 2022) (“Chris Barnard Comment Letter”).

⁹¹ See, e.g., Fidelity Comment Letter; Capital Group Comment Letter; BlackRock Comment Letter; Americans for Tax Reform Comment Letter; *see also* Federated Hermes Comment Letter I (suggesting that the 2014 amendments that imposed a floating NAV on institutional funds sufficiently addressed first-mover issues).

redemptions orders if a swing factor would apply for that pricing period.⁹² Similarly, another commenter suggested that small adjustments to a fund's NAV would be unlikely to affect a shareholder's decision to redeem, even with a market impact factor.⁹³ Some other commenters suggested that uncertainty regarding the application of swing pricing may in fact increase incentives for investors to redeem ahead of others.⁹⁴

As discussed in the Proposing Release, swing pricing and liquidity fees can be economically equivalent in terms of charging redeeming investors for the liquidity costs they impose on a fund.⁹⁵ Both approaches allow funds to recapture the liquidity costs of redemptions to make non-redeeming investors whole. The Commission considered both approaches in the Proposing Release and, after acknowledging that each approach has certain advantages and disadvantages over the other, the Commission expressed the view that swing pricing appeared to have operational benefits relative to liquidity fees. For example, as discussed in the proposal, the Commission believed swing pricing would require less involvement by intermediaries in applying a charge to redeeming investors than liquidity fees.⁹⁶

Many commenters stated that liquidity fees were preferable to swing pricing.⁹⁷ Many of these commenters stated that liquidity fees would be easier for money market funds to

⁹² See, e.g., Capital Group Comment Letter; Dechert Comment Letter; Schwab Comment Letter; Allspring Funds Comment Letter; Federated Hermes Comment Letter II; JP Morgan Comment Letter; BlackRock Comment Letter; ICI Comment Letter; SIFMA AMG Comment Letter; *see also* US Chamber of Commerce Comment Letter.

⁹³ See Fidelity Comment Letter.

⁹⁴ See, e.g., CCMR Comment Letter (suggesting that swing pricing could incentivize runs as investors seek to redeem before a market impact factor is applied); Comment Letter of Institutional Cash Distributors (Apr. 11, 2022) ("ICD Comment Letter"); Prof. Hanson *et al.* Comment Letter; State Street Comment Letter.

⁹⁵ See Proposing Release, *supra* note 6, at sections II.B.1 and III.D.5.

⁹⁶ See *id.* at paragraph accompanying n.149 and section III.D.5.

⁹⁷ See, e.g., Invesco Comment Letter; SIFMA AMG Comment Letter (stating that liquidity fees offer many advantages as compared to swing pricing); Federated Hermes Comment Letter I (suggesting that a discretionary liquidity fee would be less onerous than swing pricing); Federated Hermes Comment Letter II; Invesco Comment Letter; Schwab Comment Letter; Morgan Stanley Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter; State Street Comment Letter; Western Asset Comment Letter; IIF Comment Letter; Allspring Funds Comment Letter; *see also* Dechert Comment Letter; CFA Comment Letter.

implement.⁹⁸ For instance, some commenters suggested that funds would be able to build on their existing experience with liquidity fees under current rules.⁹⁹ Similarly, some commenters raised the concern that swing pricing is ill-suited for money market funds given the general lack of experience with swing pricing in the money market fund industry.¹⁰⁰

Several commenters stated that a liquidity fee framework would provide benefits to investors relative to swing pricing.¹⁰¹ Some of these commenters suggested that a liquidity fee would be less confusing and more transparent with respect to the liquidity costs redeeming investors incur because investors are more familiar with the concept of liquidity fees (which exist in the current rule) and because the size of the swing factor is not readily observable in the fund's share price.¹⁰² Some commenters suggested that a liquidity fee would be a more direct way to pass along liquidity costs and, unlike swing pricing, would do so without providing a discount to subscribing investors or adding volatility to the fund's NAV.¹⁰³ Some commenters suggested that the changes in a fund's NAV caused by application of the swing factor may cause investors to time their purchases of money market shares to attain a pricing advantage during predictable

⁹⁸ See, e.g., Federated Hermes Comment Letter II; Invesco Comment Letter; SIFMA AMG Comment Letter; Schwab Comment Letter; IIF Comment Letter; BlackRock Comment Letter.

⁹⁹ See, e.g., Federated Hermes Comment Letter II; Invesco Comment Letter; SIFMA AMG Comment Letter; Schwab Comment Letter; IIF Comment Letter.

¹⁰⁰ See Morgan Stanley Comment Letter; SIFMA AMG Comment Letter; IIF Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Comment Letter of Senator Pat Toomey (Apr. 12, 2022) ("Senator Toomey Comment Letter"); Mutual Fund Directors Forum Comment Letter; see also Comment Letter of Professor Stephen G. Cecchetti, Brandeis International Business School, and Professor Kermit L. Schoenholtz, Leonard N. Stern School of Business, New York University (Feb. 1, 2022) ("Profs. Cecchetti and Schoenholtz Comment Letter").

¹⁰¹ See, e.g., ICI Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Invesco Comment Letter; Schwab Comment Letter; Morgan Stanley Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter; State Street Comment Letter; Western Asset Comment Letter; IIF Comment Letter; Allspring Funds Comment Letter; see also Dechert Comment Letter; CFA Comment Letter.

¹⁰² See, e.g., Morgan Stanley Comment Letter (expressing the belief that investors understand and are more comfortable with a fee-based regime, as compared to swing pricing, because of previous efforts of money market fund sponsors to educate fund investors on liquidity fees, as well as investors' experiences with redemption fees under rule 22c-2 and sales charges and deferred sales charges); SIFMA AMG Comment Letter; Federated Hermes Comment Letter II.

¹⁰³ See, e.g., ICI Comment Letter; Federated Hermes Comment Letter II ("Shareholders who subscribe on days when price is swung down will receive a windfall profit."); JP Morgan Comment Letter ("[R]emaining investors will not experience additional NAV volatility as with swing pricing.").

seasonal redemption activity such as tax payment dates or month-end.¹⁰⁴ Further, one commenter indicated that a liquidity fee framework could better preserve same-day liquidity for investors than swing pricing because liquidity fees are already operationally feasible for many money market funds and present fewer implementation challenges.¹⁰⁵

Commenters suggested various alternatives regarding the form and structure of liquidity fees. Some commenters suggested that fund boards should have discretion to determine whether to impose liquidity fees.¹⁰⁶ Some commenters suggested an approach where liquidity fees would apply automatically upon certain events, such as upon net redemptions exceeding an identified threshold or liquidity dropping below a certain level.¹⁰⁷

After considering these comments, we are adopting a liquidity fee framework to better allocate liquidity costs to redeeming investors. The proposed swing pricing requirement was designed to address potential shareholder dilution and the potential for a first-mover advantage for institutional funds. While we continue to believe these goals are important, we are persuaded by commenters that these same goals are better achieved through a liquidity fee mechanism, particularly given that current rule 2a-7 includes a liquidity fee framework that funds are accustomed to and can build upon.

The mandatory liquidity fee framework we are adopting is designed to address concerns with the prior liquidity fee framework—namely the incentives for preemptive redemptions

¹⁰⁴ See Federated Hermes Comment Letter I; Federated Hermes Comment Letter II (expressing concern about other scenarios in which swing pricing may incentivize trading to take advantage of fluctuations in the fund's NAV, such as incentives to purchase in early pricing periods—when money market funds tend to have more redemptions—and redeem in a later pricing period, when net redemptions are less likely); Western Asset Comment Letter; Dechert Comment Letter (suggesting that swing pricing may have a potentially unintended dilutive effect of incentivizing investors to buy into a fund at a lower NAV once the fund swings).

¹⁰⁵ See IIF Comment Letter.

¹⁰⁶ See, e.g., ICI Comment Letter; Schwab Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Federated Hermes Fund Board Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter.

¹⁰⁷ See, e.g., Morgan Stanley Comment Letter; Western Asset Comment Letter; BlackRock Comment Letter; State Street Comment Letter; SIFMA AMG Comment Letter; ICI Comment Letter; JP Morgan Comment Letter; IIF Comment Letter; Invesco Comment Letter.

associated with predictable weekly liquid asset triggers. At the same time it continues to seek to ensure that the costs stemming from redemptions in stressed market conditions are more fairly allocated to redeeming investors. Specifically, institutional prime and institutional tax-exempt money market funds will be subject to a mandatory liquidity fee when net redemptions exceed 5% of net assets.¹⁰⁸ Funds will not be required to impose this fee, however, when liquidity costs are less than one basis point, which we anticipate will often be the case under normal market conditions.¹⁰⁹ As discussed in more detail throughout this section, the mandatory liquidity fee we are adopting will broadly address the concerns commenters raised about the swing pricing proposal while still generally achieving the goals we sought in that proposal. Separately, similar to the statements in the proposal that money market funds can impose discretionary liquidity fees under rule 22c-2, amended rule 2a-7 will provide a discretionary liquidity fee tool to all non-government money market funds, which a fund will use if its board (or the board's delegate, in accordance with board-approved guidelines) determines that such fee is in the best interests of the fund.¹¹⁰

The mandatory liquidity fee approach that we are adopting will require redeeming investors to pay the cost of depleting a fund's liquidity, particularly under stressed market conditions and when net redemptions are sizeable. As discussed in the proposal, trading activity and other changes in portfolio holdings associated with meeting redemptions may impose costs, including trading costs and costs of depleting a fund's daily or weekly liquid assets. These costs, which currently are borne by the remaining investors in the fund, can dilute the interests of non-redeeming shareholders and create incentives for shareholders to redeem quickly to avoid losses, particularly in times of market stress.¹¹¹ If shareholder redemptions are motivated by this first-

¹⁰⁸ See amended rule 2a-7(c)(2)(ii).

¹⁰⁹ See amended rule 2a-7(c)(2)(iii)(D).

¹¹⁰ A government money market fund may elect to be subject to the discretionary liquidity fee requirement.

¹¹¹ See *infra* section IV.B.1.c.

mover advantage, they can lead to increasing outflows, and as the level of outflows from a fund increases, the incentive for remaining shareholders to redeem may also increase. Regardless of the motive for investor redemptions, there can be significant, unfair adverse consequences to remaining investors in a fund in these circumstances, including material dilution of remaining investors' interests in the fund. The mandatory liquidity fee mechanism is designed to reduce the potential for such dilution.

Some commenters suggested that an anti-dilution tool is not necessary for money market funds. Several of these commenters suggested that money market funds do not experience dilution as a general matter because they are able to address their liquidity needs without cost and without selling assets by using daily liquid assets and weekly liquid assets, which are held to maturity.¹¹² Some commenters further suggested that the Commission did not provide sufficient data analysis to support its view that money market funds are subject to dilution.¹¹³ Some commenters suggested an anti-dilution tool was unnecessary in light of either the proposed increased daily and weekly liquid asset requirements, the proposed removal of the tie to weekly liquid assets, or a combination of those factors because funds would have additional liquidity to meet redemptions and would be better able to use that liquidity in future stress periods.¹¹⁴

After considering comments, we continue to believe that in periods of market stress, when liquidity in underlying short-term funding markets is scarce and costly, redeeming investors should bear liquidity costs associated with sizeable redemption activity. While we

¹¹² See, e.g., Northern Trust Comment Letter; Fidelity Comment Letter; SIFMA AMG Comment Letter; IIF Comment Letter; Federated Hermes Comment Letter II; CCMR Comment Letter; State Street Comment Letter; ICI Comment Letter; JP Morgan Comment Letter; Comment Letter of Stephen A. Keen (Apr. 11, 2022) ("Keen Comment Letter"); Comment Letter of U.S. Bancorp Asset Management (Apr. 14, 2022) ("Bancorp Comment Letter").

¹¹³ See, e.g., Morgan Stanley Comment Letter; Fidelity Comment Letter (suggesting that the SEC lacked data to demonstrate the significance or materiality of shareholder dilution); ICI Comment Letter; SIFMA AMG Comment Letter; CCMR Comment Letter.

¹¹⁴ See, e.g., Schwab Comment Letter; Healthy Markets Association Comment Letter; Allspring Funds Comment Letter; Fidelity Comment Letter; Invesco Comment Letter; BlackRock Comment Letter; Federated Hermes Comment Letter II; ICI Comment Letter; SIFMA AMG Comment Letter; *but see* Better Markets Comment Letter (suggesting that increasing the costs of redemptions would reduce potential first-mover advantages).

recognize that a fund may not incur immediate costs to meet those redemptions if the fund can satisfy redemptions using daily liquid assets, the fund is likely to face costs to rebalance the liquidity of its portfolio over time.¹¹⁵ Moreover, if redemptions are large and ongoing, there is an increased likelihood that the fund will need to sell less liquid assets to satisfy redemptions, which involves greater costs. Thus, there is a timing misalignment between an investor's redemption activity and when the fund, and its remaining shareholders, incur liquidity costs. The liquidity fee requirement we are adopting is designed to protect remaining shareholders from dilution under these circumstances and to more fairly allocate costs so that redeeming shareholders bear the costs of removing liquidity from the fund when liquidity in underlying short-term funding markets is costly.

In response to comments suggesting that we conduct a data analysis on the extent to which money market fund shareholders have experienced dilution in the past, we do not have fund-specific data on dilution because funds do not report information about their daily portfolio holdings and transactions. However, as discussed in the Proposing Release, in March 2020 institutional prime and institutional tax-exempt money market funds experienced significant outflows, spreads for instruments in which these funds invest widened sharply, and these funds sold significantly more long-term portfolio securities (*i.e.*, securities that mature in more than a month) than average.¹¹⁶ For instance, Form N-MFP data suggests that publicly offered institutional prime funds increased their sales of long-term securities in March 2020 to 15% of total assets, in comparison to a 4% monthly average between October 2016 and February 2020. In addition, the March 2020 figure, which is over three times the monthly average as compared to data from prior years, likely understates the full extent of the selling activity, as Form N-MFP

¹¹⁵ Theoretically, a money market fund would not incur rebalancing costs if it were able to perfectly “ladder” the maturity of its portfolio structure, such that investments are maturing in parallel with investors’ redemption activities. However, as a practical matter, perfect laddering is impossible because funds do not have advance notice of all investor purchase and redemption activity.

¹¹⁶ See Proposing Release, *supra* note 6, at section I.B.

currently does not provide insight on sales of portfolio securities that a fund acquired during the relevant month.¹¹⁷ As an example of widening spreads in the markets in which prime funds invest, bid-ask spreads of highly rated dealer-placed commercial paper reached between approximately 25 and 55 basis points at the height of the stress in March and April 2020 depending on maturity.¹¹⁸ Thus, available evidence indicates that money market funds were incurring liquidity costs to meet redemptions, but these costs generally were not borne by redeeming investors who received the NAV at the time of their redemptions.¹¹⁹ Moreover, the dilution the final rule is designed to address is not limited to the costs a fund incurs in selling portfolio securities to meet redemptions. The final rule also addresses dilution from the costs of reducing the liquidity of a fund's portfolio, including associated rebalancing costs, which would also require granular daily data that funds do not publicly report.

We understand that future stress periods may not look exactly the same as March 2020, and, as some commenters suggested, in future periods funds may feel more comfortable drawing on available liquidity to meet redemptions because we are removing the tie between liquidity thresholds and fees and gates. Funds also may begin future stressed periods with higher levels of daily and weekly liquid assets than in March 2020, although at that time some funds had liquidity above the minimums we are adopting. However, it is also possible that future stress periods will be longer or otherwise more severe than March 2020, that future stress events will have no Federal intervention to alleviate those stresses, or that a particular fund or group of funds will come under stress due to factors idiosyncratic to the fund(s). It is important for funds to be able to manage through various types of stress events and not to rely solely on liquidity buffers

¹¹⁷ As discussed below, we are amending Form N-MFP to require prime funds to report the value of non-maturing portfolio securities they sold each month. *See infra* section II.F.2.a.

¹¹⁸ *See infra* paragraph accompanying note 630.

¹¹⁹ To the extent that ultra-short bonds may be somewhat comparable to the debt instruments that money market funds hold and the magnitude of NAV discounts that ultra-short bond exchange-traded funds experienced in March 2020 may proxy for liquidity costs of money market funds that hold similar assets, this could suggest that institutional prime money market funds have nontrivial dilution costs during market stress. *See id.*

to manage stress. As discussed below and in the Proposing Release, while liquidity minimums are an important tool for managing redemptions, our analysis suggests that some funds would run out of liquidity if faced with the redemptions rates experienced in March 2020.¹²⁰ Thus, we do not agree with commenters who suggested that amendments to enhance money market fund liquidity, and the usability of that liquidity, would be sufficient on their own, without an available anti-dilution tool.

Moreover, to the extent that investors currently are incentivized to redeem quickly during periods of market stress to avoid potential costs from a fund's future sale of less liquid securities, the amendments will reduce those first-mover incentives and the associated run risk. While some academic papers support the premise that liquidity externalities may create a first-mover advantage that may lead to cascading anticipatory redemptions, we recognize that investors may redeem from a fund for a variety of reasons, and these reasons may vary among investors.¹²¹ Notably, we are concerned about dilution and fair allocation of costs when a fund has sizeable net redemptions in a stressed period regardless of the reasons for investors' redemptions. In response to comments suggesting that an anti-dilution tool would not address first-mover issues if an investor does not know if it will incur liquidity costs at the time the investor submits the redemption order, we disagree. We believe that an investor's general awareness that it may incur liquidity costs, particularly in stressed market conditions and when other investors may also be redeeming, is sufficient to mitigate the first-mover advantage and reduce its potential influence on an investor's redemption decisions. We also disagree with commenters who suggested that an anti-dilution tool with a net redemption trigger may increase incentives for investors to redeem ahead of others. Investors generally will not know with certainty if the fund's flows for any particular day will trigger a liquidity fee since a fund's net flows are dependent on many investors' individual investment decisions, which are not knowable in advance and can be

¹²⁰ See *infra* sections II.C.1 and IV.C.2; Proposing Release, *supra* note 6, at sections II.C.1 and III.C.2.

¹²¹ See *infra* note 550 and accompanying text (discussing these academic papers).

influenced by a multitude of different factors.¹²² While investors may anticipate that a fund will have net redemptions during a market stress event, the investors will also know that if they redeem, the likelihood of incurring fees increases. This dynamic should reduce investors' incentives to attempt to preemptively redeem to avoid liquidity fees. We agree with commenters that suggested that a net redemption threshold would be appropriate to avoid the threshold effects seen in March 2020.¹²³ Moreover, the 5% net redemption threshold is designed to help mitigate the risk that a significant amount of redemptions could occur under stressed market conditions before a fee is triggered, thus incentivizing investors to redeem ahead of others.

As the Commission has previously recognized, in the absence of an exemption, imposing liquidity fees could violate 17 CFR 270.22c-1 ("rule 22c-1"), which (together with section 22(c) and other provisions of the Investment Company Act) requires that each redeeming shareholder receive his or her pro rata portion of the fund's net assets.¹²⁴ As a result, we are exercising our authority under section 6(c) of the Act to provide exemptions from these and related provisions of the Act so that a money market fund can institute liquidity fees, which can benefit the fund and its shareholders by providing a more systematic and equitable allocation of liquidity costs, notwithstanding these restrictions.¹²⁵ We believe that such exemptions do not implicate the concerns that Congress intended to address in enacting these provisions, and thus they are

¹²² See *infra* section IV.C.4.b.i (further discussing how a liquidity fee based on a net redemptions trigger may mitigate run incentives).

¹²³ See, e.g., SIFMA AMG Comment Letter; BlackRock Comment Letter; IIF Comment Letter; Morgan Stanley Comment Letter. As discussed further below, some of these commenters suggested a trigger for liquidity fees that paired a net redemption threshold with a weekly liquid asset threshold.

¹²⁴ See 2014 Adopting Release, *supra* note 26, at section III.A.3.

¹²⁵ Section 6(c) of the Investment Company Act. In addition, like current rule 2a-7, the final rule provides that, notwithstanding section 27(i) of the Investment Company Act, a variable insurance contract issued by a registered separate account funding variable insurance contracts or the sponsoring insurance company of such separate account may apply a liquidity fee to contract owners who allocate all or a portion of their contract value to a subaccount of the separate account that is either a money market fund or that invests all of its assets in shares of a money market fund. See 17 CFR 270.2a-7(c)(2)(iv); amended rule 2a-7(c)(2)(iv). Section 27(i)(2)(A) makes it unlawful for any registered separate account funding variable insurance contracts or the sponsoring insurance company of such account to sell a variable contract that is not a "redeemable security."

necessary and appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the Act.

As discussed, we are adopting a mandatory liquidity fee framework in lieu of the proposed swing pricing requirement. Table 1 below compares the key elements of the current rule's default liquidity fee, the proposed swing pricing requirement, and the mandatory liquidity fee provision we are adopting. In addition, Table 2 below compares the key elements of the current rule's discretionary liquidity fee, the redemption fee approach contemplated by the proposal, and the discretionary liquidity fee provision we are adopting. We discuss these aspects of the final rule and how they relate to comments on the proposal in the following sections.

Table 1 – Comparison of the Current Rule's Default Liquidity Fee, the Proposed Rule's Swing Pricing Requirement, and the Final Rule's Mandatory Liquidity Fee

	Current Rule's Default Liquidity Fee	Proposed Rule's Swing Pricing Requirement	Final Rule's Mandatory Liquidity Fee
Description of mechanism	A default fee is charged to redeeming investors when the fund's weekly liquid assets decline below 10%, subject to certain board discretion.	The fund's NAV is adjusted downward by a swing factor when the fund has net redemptions.	A mandatory fee is charged to redeeming investors when the fund has net redemptions above 5% of net assets.
Scope of affected funds	Prime and tax-exempt money market funds.	Institutional prime and institutional tax-exempt money market funds.	Institutional prime and institutional tax-exempt money market funds.
Scope of affected investors	Redeeming investors are charged a liquidity fee. The liquidity fee does not affect subscribing investors.	The NAV is adjusted downward for both redeemers and subscribers. Redeeming investors' redemption proceeds are reduced and subscribing investors purchase at a discounted price, compared to the unadjusted NAV they both otherwise would have received.	Redeeming investors are charged a liquidity fee. The liquidity fee does not affect subscribing investors.
Threshold for applying a charge	If weekly liquid assets fall below 10%, then a default fee would apply to redeeming investors, unless the board determines a fee is not in the best interests of the fund. ¹	At any level of net redemptions for a pricing period, the swing factor includes spreads and certain other transaction costs (<i>i.e.</i> , brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio security sales). If net redemptions for a pricing period exceed 4% of net assets divided by the number of pricing periods per day, or such smaller amount of net redemptions as the swing pricing administrator	Fees are triggered when the fund has total daily net redemptions that exceed 5% of net assets based on flow information available within a reasonable period after the last computation of the fund's net asset value on that day, or such smaller amount of net redemptions as the board determines.

	Current Rule's Default Liquidity Fee	Proposed Rule's Swing Pricing Requirement	Final Rule's Mandatory Liquidity Fee
		determines, the swing factor also includes market impact costs.	
Duration and application of the charge	<p>The liquidity fee begins to apply on the business day after the fund crosses the 10% weekly liquid asset threshold. Once imposed, the fee must be applied to all shares redeemed and remains in effect until the fund's board, including a majority of directors who are not interested persons of the fund, determines that imposing a fee is not in the best interests of the fund.</p> <p>If the fund has invested 30% or more of its total assets in weekly liquid assets as of the end of a business day, the fund must cease charging a fee effective the beginning of the next business day.</p>	The price is adjusted for all shareholders transacting in the fund's shares during the relevant pricing period.	The fund must apply a liquidity fee to all shares that are redeemed at a price computed on the day the fund has total daily net redemptions that exceed 5% of net assets.
Size of the charge	The default fee is 1%, unless the fund's board of directors, including a majority of the directors who are not interested persons of the fund, determines that a higher or lower fee level is in the best interests of the fund.	<p>The swing factor would be determined by making good faith estimates of the spread, other transaction, and market impact costs the fund would incur, as applicable, if it were to sell a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions.</p> <p>Affected money market funds could estimate costs and market impact factors for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type in the fund's portfolio, rather than analyze each security separately.</p>	<p>The size of the fee generally is determined by making a good faith estimate of the spread, other transaction, and market impact costs the fund would incur if it were to sell a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions.</p> <p>Affected money market funds can estimate costs and market impacts for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type in the fund's portfolio, rather than analyze each security separately.</p> <p>If the estimated liquidity costs are less than one basis point (0.01%) of the value of the shares redeemed, a fund is not required to apply a fee under the <i>de minimis</i> exception.</p> <p>If the fund cannot estimate the costs of selling a pro rata amount of each portfolio security in good faith and supported by data, a default liquidity fee of 1% of the value of shares redeemed applies.</p>

	Current Rule's Default Liquidity Fee	Proposed Rule's Swing Pricing Requirement	Final Rule's Mandatory Liquidity Fee
Maximum charge	The fee cannot exceed 2% of the value of the shares redeemed.	The swing factor has no upper limit.	The fee has no upper limit.
Party who administers the provision	The board is responsible for administering the liquidity fee requirement. The board may not delegate liquidity fee determinations.	The board must approve swing pricing policies and procedures. The swing pricing administrator is charged with administering the swing pricing requirement. The swing pricing administrator is the fund's investment adviser, officer, or officers responsible for administering the fund's swing pricing policies and procedures, as designated by the fund's board. The administrator can be an individual or a group of persons.	The board is responsible for administering the liquidity fee requirement, but the board can delegate this responsibility to the fund's investment adviser or officers, subject to written guidelines established and reviewed by the board and ongoing board oversight. ²

Notes:

1. The board determinations this Table refers to generally must include a majority of the directors who are not interested persons of the fund.
2. This approach is consistent with the operation of several other provisions of rule 2a-7.

Table 2 – Comparison of the Current Rule's Discretionary Liquidity Fee, the Proposed Rule, and the Final Rule's Discretionary Liquidity Fee

	Current Rule's Discretionary Liquidity Fee	Proposed Rule and Rule 22c-2	Final Rule's Discretionary Liquidity Fee
Description of mechanism	A discretionary fee may be charged to redeeming investors when the fund's weekly liquid assets decline below 30% and the board determines that a fee is in the best interests of the fund. ¹	The proposal would have removed the discretionary liquidity fee provision in rule 2a-7 and stated that money market fund boards could rely on existing rule 22c-2 if they determine redemption fees are needed to address dilution.	Irrespective of liquidity or redemption levels, a discretionary fee is charged to redeeming investors when the board determines that the fee is in the best interests of the fund.
Scope of affected funds	Prime and tax-exempt money market funds. Government money market funds may opt in.	Any money market fund may elect to rely on rule 22c-2 to impose fees, in which case the fund would no longer be an excepted fund under that rule.	Prime and tax-exempt money market funds. Government money market funds may opt in.
Scope of affected investors	Redeeming investors are charged a liquidity fee. The liquidity fee does not affect subscribing investors.	Redeeming investors are charged a liquidity fee. The liquidity fee does not affect subscribing investors.	Redeeming investors are charged a liquidity fee. The liquidity fee does not affect subscribing investors.
Threshold for applying a charge	If weekly liquid assets fall below 30%, then a fund may institute a fee if the board determines that the fee is in the best interests of the fund.	The fund's board may impose a redemption fee that in its judgment is necessary or appropriate to recoup for the fund the costs it may incur as a result of redemptions or to otherwise eliminate or reduce so far as practicable any dilution of the value of the outstanding securities issued by the fund.	If the board determines that doing so is in the best interests of the fund, the board must impose a liquidity fee.

	Current Rule’s Discretionary Liquidity Fee	Proposed Rule and Rule 22c-2	Final Rule’s Discretionary Liquidity Fee
Duration and application of the charge	Once imposed, the discretionary fee must be applied to all shares redeemed and remain in effect until the fund’s board determines that imposing a fee is not in the best interests of the fund. If the fund has invested 30% or more of its total assets in weekly liquid assets as of the end of a business day, the fund must cease charging a fee effective the beginning of the next business day.	Generally subject to board discretion under the rule.	Once imposed, the discretionary fee must be applied to all shares redeemed and remain in effect until the fund’s board determines that imposing such fee is no longer in the best interests of the fund.
Size of the charge	The rule does not prescribe the manner or amount of the fee calculation. The fee, however, must be in the best interests of the fund.	The fee must be necessary or appropriate, as determined by the board, to recoup for the fund the costs it may incur as a result of those redemptions or to otherwise eliminate or reduce so far as practicable any dilution of the value of the outstanding securities issued by the fund.	The rule does not prescribe the manner or amount of the fee calculation. The fee, however, must be in the best interests of the fund.
Maximum charge	The fee cannot exceed 2% of the value of the shares redeemed.	The fee cannot exceed 2% of the value of the shares redeemed.	The fee cannot exceed 2% of the value of the shares redeemed.
Party who administers the provision	The board is responsible for administering the liquidity fee requirement. The board may not delegate liquidity fee determinations.	The fund’s board.	The board is responsible for administering the liquidity fee requirement, but the board can delegate this responsibility to the fund’s investment adviser or officers, subject to written guidelines established and reviewed by the board and ongoing board oversight. ²
Notes: 1. The board determinations this Table refers to generally must include a majority of the directors who are not interested persons of the fund. 2. This approach is consistent with the operation of several other provisions of rule 2a-7.			

2. Terms of the New Mandatory Liquidity Fee Requirement

The mandatory liquidity fee we are adopting, like the swing pricing proposal, is based upon a net redemption threshold and only applies to institutional prime and institutional tax-exempt funds.¹²⁶ Unlike the swing pricing proposal, however, the anti-dilution measure triggers only when net redemptions for the business day exceed 5% of net assets.¹²⁷ Similar to the

¹²⁶ We refer to money market funds that are not government money market funds or retail money market funds collectively as “institutional funds” when discussing the liquidity fee requirement.

¹²⁷ See amended rule 2a-7(c)(2)(ii) (allowing a fund’s board to determine to use a smaller net redemption

proposed swing pricing proposal, the fee amount would reflect the fund's good faith estimate of liquidity costs, supported by data, of the costs the fund would incur if it sold a pro rata amount of each security in its portfolio (*i.e.*, vertical slice) to satisfy the amount of net redemptions, including: (1) spread costs and any other charges, fees, and taxes associated with portfolio security sales; and (2) market impacts for each security.¹²⁸ The final rule will not require a fund to apply a fee if the estimated costs are *de minimis*, meaning that if the fee were applied, the amount of the fee would be less than 0.01% of the value of the shares redeemed.¹²⁹ In addition, if a fund cannot make a good faith estimate of liquidity costs, it will apply a default fee of 1%.¹³⁰ This mandatory liquidity fee regime substantially accomplishes the same goals as the proposed swing pricing mechanism and, like swing pricing, it is designed to ensure that the costs stemming from significant net redemptions in periods of market stress are fairly allocated and will not give rise to dilution or a first-mover advantage.

The new mandatory liquidity fee has some key differences as compared to the current rule. For example, the mandatory liquidity fee is triggered by net redemptions as opposed to weekly liquid assets.¹³¹ In addition, unlike the current rule, but consistent with the proposed swing pricing requirement, the amended framework does not provide discretion to the board with respect to its application. Rather, the fund will be required to apply a fee if it crosses the net redemption threshold unless the fee amount is *de minimis*. Moreover, the final amendments are

threshold than 5%). In contrast, the proposed swing pricing requirement would have required an institutional fund to adjust its current NAV per share by a swing factor reflecting spread and transaction costs, as applicable, if the fund has net redemptions for the pricing period. If the institutional fund experienced net redemptions exceeding 4% of the fund's net asset value (divided by the number of pricing periods the fund has in a business day, or such smaller amount of net redemptions as the swing pricing administrator determines), then the swing factor would also include market impact costs.

¹²⁸ See amended rule 2a-7(c)(2)(iii)(A).

¹²⁹ See amended rule 2a-7(c)(2)(iii)(D).

¹³⁰ See amended rule 2a-7(c)(2)(iii)(C).

¹³¹ See 17 CFR 270.2a-7(c)(2)(ii) (requiring a non-government money market fund to impose a default liquidity fee of 1% on all redemptions if its weekly liquid assets fall below 10% of its total assets, unless the board of directors of the fund (including a majority of its independent directors) determines that imposing such a fee would not be in the best interests of the fund).

more specific in terms of how a fund determines the amount of the fee than the current rule and, as a result, does not include a limit on the amount of the fee a fund can charge.¹³²

The new mandatory liquidity fee only applies to institutional prime and institutional tax-exempt funds. This is in contrast to the current rule's default liquidity fees, which apply to retail funds, but is consistent with the approach we proposed for swing pricing. We are not requiring retail or government money market funds to implement mandatory liquidity fees due to differences in investor behavior and, in the case of government funds, liquidity costs. As discussed in the proposal, retail money market funds historically have had smaller outflows than institutional funds during times of market stress and appear to be less sensitive to declines in a fund's liquidity.¹³³ As a consequence, we continue to believe retail fund managers may be more comfortable drawing down available liquidity from the fund's daily liquid assets and weekly liquid assets to meet redemptions in times of stress, without engaging in secondary market sales that could result in significant liquidity costs. In addition, we do not believe that retail prime and tax-exempt money market funds need special provisions requiring them to impose liquidity fees given both the anticipated effect of the daily and weekly liquid asset requirement changes and, as described below, the availability of the discretionary liquidity fee we are adopting. As for government money market funds, investors typically view these funds, in contrast to prime money market funds, as a relatively safe investment during times of market turmoil, and government money market funds have seen inflows during periods of market instability. Government money market funds are also less likely to incur significant liquidity costs when they purchase or sell portfolio securities due to the generally higher levels of liquidity in the markets in which they invest.

¹³² In contrast, under the current rule, a liquidity fee may not exceed 2% of the value of the shares redeemed. *See* 17 CFR 270.2a-7(c)(2)(ii)(A).

¹³³ *See* Proposing Release, *supra* note 6, at section II.B.1.

Consistent with the swing pricing proposal, the mandatory anti-dilution mechanism (in this case a liquidity fee) applies to all institutional funds, irrespective of whether they are offered publicly. Some commenters suggested that privately offered institutional funds should not be subject to a mandatory anti-dilution tool.¹³⁴ Asset managers typically organize privately offered institutional money market funds to manage cash balances of other affiliated funds and accounts. These funds operate in almost all respects as a registered money market fund, except that their securities are privately offered and thus not registered under the Securities Act.¹³⁵ Some commenters suggested privately offered institutional funds are not subject to the same first-mover and run concerns as publicly offered institutional funds because they serve as tools for funds within the same fund complex and are used for internal purposes such as cash management and investing collateral from securities lending transactions.¹³⁶ For example, one commenter suggested that, because of these characteristics, such funds are focused more on liquidity than yield.¹³⁷ Other commenters suggested that such funds have greater transparency into redemptions than publicly offered institutional funds.¹³⁸ We decline to provide an exception for these funds from the mandatory liquidity fee requirement because we do not believe that such funds are immune to the risks of dilution and potential first-mover advantages that mandatory liquidity fees are designed to address. For example, registered funds investing in a privately offered institutional fund may have an incentive to redeem shares in times of market stress (*e.g.*, to raise funds to pay their own redemptions, which may be heightened at that time), increasing the risk of

¹³⁴ See, *e.g.*, Fidelity Comment Letter; BlackRock Comment Letter; Capital Group Comment Letter; ICI Comment Letter; Comment Letter of Dimensional Fund Advisors LP (Apr. 11, 2022) (“Dimensional Fund Advisors Comment Letter”); Dechert Comment Letter.

¹³⁵ See 17 CFR 270.12d1-1 (generally requiring that the acquiring fund reasonably believes that the money market fund operates in compliance with rule 2a-7).

¹³⁶ See, *e.g.*, Fidelity Comment Letter; ICI Comment Letter; BlackRock Comment Letter; Capital Group Comment Letter; ICI Comment Letter; Dimensional Fund Advisors Comment Letter; Dechert Comment Letter; *but see* 2014 Adopting Release, *supra* note 26, at section III.C.5 (discussing the Commission’s belief that unregistered money market funds are not immune to the risks posed by money market funds generally).

¹³⁷ See Capital Group Comment Letter.

¹³⁸ See Capital Group Comment Letter; ICI Comment Letter.

dilution for remaining registered funds. Potential first-mover incentives may also exist, particularly if registered funds are investing in a privately offered institutional fund in another fund complex in which the registered funds have no greater transparency, creating a potential incentive to redeem ahead of other investors in times of market stress.¹³⁹

The final rule provides for mandatory liquidity fees for institutional funds because institutional investors have a history of redeeming from these funds quickly in times of stress, increasing the risk of dilution for remaining shareholders in institutional funds. In addition, if the liquidity fee regime for these funds were purely voluntary, institutional funds (or their boards) may require additional time or information to decide whether to impose fees, depending on the considerations on which the fee is based. This could result in a delay that creates timing misalignments between an investor's redemption activity and the imposition of liquidity costs, thus allowing some investors to redeem without bearing the associated liquidity costs and contributing to dilution and a first-mover advantage. Further, some funds (or their boards) may be reluctant to impose fees to avoid perceived reputational or competitiveness issues associated with imposing fees before other institutional funds, which institutional investors may be more likely to react to than retail investors.¹⁴⁰ As a result, a purely voluntary regime may result in institutional funds not imposing a fee unless a fund is under severe and prolonged stress, by which point the fee's effectiveness in addressing dilution and potential first-mover advantages would be significantly reduced.¹⁴¹

¹³⁹ See 2014 Adopting Release, *supra* note 26, at section III.C.5.

¹⁴⁰ As discussed above and in the Proposing Release, available evidence suggests that institutional investors were more sensitive to the possibility of redemption gates or liquidity fees in Mar. 2020 than retail investors, and institutional prime and institutional tax-exempt money market funds managed their portfolios to avoid having less than 30% of their total assets invested in weekly liquid assets, at which point a board could determine to institute gates or fees. In addition, the one money market fund to fall below this threshold in Mar. 2020 did not institute gates or fees. See *supra* sections I.B and II.A; Proposing Release, *supra* note 6, at sections I.B. and II.A. While we believe that institutional investors are more sensitive to redemption gates than to liquidity fees, some institutional investors may prefer to avoid the possibility of liquidity fees as well, if possible.

¹⁴¹ One commenter, suggesting that discretionary fees would be sufficient, indicated that fund boards would have incentives to impose fees if redemptions reduced the fund's NAV and imposed material dilution, including due to legal and reputational risk associated with a failure to act. See Comment Letter of

a. Threshold for Mandatory Liquidity Fees

We are requiring that institutional funds apply the mandatory liquidity fee when net redemptions for the business day exceed 5% of net assets, or such smaller amount of net redemptions as the board (or its delegate) determines. This 5% threshold is in contrast to the swing pricing proposal, which would have required funds to charge redeeming investors spread and certain other transaction costs if the fund had any net redemptions for the pricing period and to include market impacts in the charge if net redemptions exceeded 4% of net assets, or such smaller amount of net redemptions as the swing pricing administrator determines. In the proposal, application of this 4% threshold would have required funds to divide the 4% value by the number of pricing periods (*i.e.*, NAV strikes) the fund has each day.¹⁴² In contrast, the 5% net redemption threshold is based on flows for all pricing periods in a given day. In addition, unlike the current rule, but consistent with the proposal, application of the anti-dilution mechanism is not tied to a weekly liquid asset threshold. Also, unlike the current rule, but consistent with the proposal, the mechanism applies to redemptions on each business day a fund crosses the net redemption threshold. This is in contrast to the current rule's default liquidity fee, which applies to redemptions the business day after weekly liquid assets fall below the 10% threshold and continues to apply on subsequent days until the board determines that the liquidity fee is no longer in the best interests of the fund. Per the rule we are adopting, an institutional prime or institutional tax-exempt money market fund must apply a liquidity fee if its total daily net redemptions exceed 5% of the fund's net asset value based on flow information available within a reasonable period after the last computation of the fund's net asset value on that day. If this

Federated Hermes, Inc. (July 5, 2023) ("Federated Hermes Comment Letter V"). Absent persuasive information that redemptions would have these stated effects, however, there may be contrary incentives to delay any fee determinations to avoid reputational risk or second-guessing associated with imposing a fee, particularly if comparable funds are not imposing fees.

¹⁴² The proposal defined "pricing period" to mean the period of time in which an order to purchase or sell securities issued by the fund must be received to be priced at the next computed NAV. For example, if a fund computes a NAV as of 12 p.m. and 4 p.m., the fund would determine if it had net redemptions for each pricing period and, if so, apply swing pricing for the corresponding NAV calculation.

threshold is crossed, the fund must apply a liquidity fee to all shares that are redeemed at a price computed on that day.¹⁴³

Many commenters suggested that the proposed 4% market impact threshold was too low and that a redemption-based threshold for applying any charge to redeeming investors should be higher than 4%. Some commenters suggested that money market funds frequently experience net redemptions greater than 4% in normal market conditions due to seasonal redemption activity such as investor redemptions to fulfill payroll or tax obligations.¹⁴⁴ Some commenters suggested that money market funds do not incur transaction costs or dilution at such low levels of net redemptions due to the structure of these funds, including liquidity requirements that insulate funds from transaction costs, which allows funds to pay redemptions through maturing assets instead of secondary market activity even during periods with high redemption levels.¹⁴⁵ Some commenters suggested that if a fund has multiple NAV strikes per day, then the 4% threshold would be particularly problematic because the proposal divided the 4% figure by the number of pricing periods per day, resulting in a lower threshold.¹⁴⁶ One commenter suggested that swing pricing should be triggered by portfolio security sales that are needed to fund shareholder redemptions.¹⁴⁷ The same commenter stated that funds should have discretion in setting their own swing thresholds.

Many commenters suggested limiting the application of liquidity fees to periods of market stress. Several commenters suggested that fund boards should have discretion to

¹⁴³ See amended rule 2a-7(c)(2)(ii).

¹⁴⁴ See, e.g., Morgan Stanley Comment Letter; Bancorp Comment Letter; Federated Hermes Comment Letter I; IIF Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; Federated Hermes Comment Letter II.

¹⁴⁵ See, e.g., Allspring Funds Comment Letter; Fidelity Comment Letter; T. Rowe Comment Letter; US Chamber of Commerce Comment Letter; Vanguard Comment Letter; Western Asset Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter II.

¹⁴⁶ See, e.g., Bancorp Comment Letter; ICI Comment Letter.

¹⁴⁷ See Capital Group Comment Letter.

determine when fees should apply, which would effectively limit fees to times of stress.¹⁴⁸

Several commenters expressed support for requiring a fund to apply a liquidity fee if it has net redemptions of more than 10%. These commenters generally suggested that the rule should pair a net redemption threshold with a weekly liquid asset threshold to ensure that the fee would apply only when the fund is under stress.¹⁴⁹ Some of these commenters suggested that a liquidity threshold is needed because a fund could meet net redemptions of more than 10% without dilution if it has sufficient liquidity and because redemptions exceeding more than 10% can occur under normal market conditions, although they are rarer than net redemptions exceeding 4% of net assets.¹⁵⁰ Some commenters suggested that pairing a weekly liquid asset threshold with a net redemption threshold would reduce the predictability of the liquidity fee trigger and reduce the likelihood of preemptive redemptions in comparison to the current rule, especially considering the effect of removing redemption gates from the rule, which commenters suggested were more likely to incentivize investor redemptions than liquidity fees.¹⁵¹ Some commenters suggested a tiered approach with multiple thresholds and fee amounts, beginning with the dual threshold of 10% net redemptions and 30% weekly liquid assets and then using weekly liquid asset-based thresholds to determine when to increase the fee amount.¹⁵² Two commenters discussed using a tiered approach with solely weekly liquid asset thresholds.¹⁵³ Commenters supporting a tiered approach generally suggested that beginning with relatively small fee

¹⁴⁸ See, e.g., ICI Comment Letter (suggesting that the rule require fund boards to consider certain enumerated factors when deciding whether to implement a liquidity fee, subject to a determination that implementing fees is in the best interests of the fund and its shareholders and is necessary to prevent material dilution or other unfair results); JP Morgan Comment Letter; Federated Hermes Comment Letter II; Invesco Comment Letter; SIFMA AMG Comment Letter.

¹⁴⁹ See, e.g., Invesco Comment Letter; IIF Comment Letter; SIFMA AMG Comment Letter (explaining that the 10% net redemption threshold was selected because it represents half of the commenter's preferred 20% daily liquid asset threshold and is less likely to be triggered by routine, expected flow activity, particularly if paired with a liquidity threshold); ICI Comment Letter.

¹⁵⁰ See, e.g., SIFMA AMG Comment Letter; ICI Comment Letter.

¹⁵¹ See, e.g., IIF Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter.

¹⁵² See, e.g., BlackRock Comment Letter; JP Morgan Comment Letter; IIF Comment Letter.

¹⁵³ See Western Asset Comment Letter (suggesting a mandatory approach to tiered fees that would first trigger when weekly liquid assets are below 30%); ICI Comment Letter.

amounts may reduce investor incentives to preemptively redeem in response to declines in liquidity in an effort to avoid a fee.¹⁵⁴ Separately, some commenters suggested thresholds based on the amount of net redemptions over multiple days to identify circumstances in which a fund is under stress.¹⁵⁵

After considering comments, we are adopting a 5% net redemption threshold for mandatory liquidity fees. We recognize that some funds would trigger the proposed 4% net redemption threshold with some frequency under normal market conditions, particularly if the fund had multiple NAV strikes per day and therefore used a smaller threshold for each pricing period under the proposal. Based on historical flow data, we estimate that an average of 4.4% of institutional prime and institutional tax-exempt money market funds would cross a 4% net redemption threshold on a given day.¹⁵⁶ To reduce the burdens of the liquidity fee requirement and to reduce the frequency at which the requirement may trigger under normal market conditions, when liquidity costs and the benefits to remaining shareholders of imposing liquidity fees are likely small, we are increasing the threshold to 5%. We estimate that an average of 3.2% of institutional funds would cross a 5% net redemption threshold on a given day. While funds may still cross the 5% threshold under normal market conditions, we anticipate that a fund's liquidity costs generally will be *de minimis* under those circumstances, and the final rule will not require a fund to apply a fee when estimated costs are *de minimis*.¹⁵⁷ We are also making other changes to the final rule that we believe will reduce the burdens of determining the amount of the fee, as discussed below.

¹⁵⁴ See, e.g., ICI Comment Letter; Western Asset Comment Letter; JP Morgan Comment Letter.

¹⁵⁵ See, e.g., Morgan Stanley Comment Letter (suggesting a framework in which fees would apply when net redemptions are more than 15% over two consecutive trading days); State Street Comment Letter (suggesting that fees should trigger if net redemptions exceed 5% for three consecutive days and the fund has experienced an event that requires reporting on Form N-CR).

¹⁵⁶ See *infra* section IV.C.4.b.i (analyzing historical daily redemptions out of institutional prime and institutional tax-exempt money market funds between Dec. 2016 and Oct. 2021).

¹⁵⁷ See amended rule 2a-7(c)(2)(iii)(D).

Consistent with the swing pricing proposal, the final rule permits a fund to use a lower net redemption threshold than is required.¹⁵⁸ Allowing a fund's board (or delegate) to use a net redemption threshold below 5% for purposes of applying mandatory fees is designed to recognize that there may be circumstances in which a smaller threshold would be appropriate to mitigate dilution of fund shareholders. For example, this may be the case when a fund holds a larger amount of less liquid investments or in times of stress.

We are not adopting an even higher net redemption threshold, or a net redemption threshold paired with a liquidity threshold, as some commenters suggested. While a higher net redemption threshold, such as 10%, would reduce the likelihood of a fund crossing the threshold under normal market conditions when liquidity costs are low, it likewise would reduce the likelihood of a liquidity fee applying in the beginning wave of redemptions in a crisis period. For example, of the outflows from institutional prime and tax-exempt money market funds during the week of March 20, 2020, approximately 31% of fund days were above the 5% threshold, but only 11% of fund days were above the 10% threshold.¹⁵⁹ If investors can redeem during the beginning stages of a crisis with a very low likelihood of incurring a fee, that may incentivize investors to redeem early, contributing to a first-mover advantage. In addition, we considered the effect of different net redemption thresholds during periods of prolonged stress, which might have occurred in March 2020 absent government intervention, by modeling fund portfolios and liquidity levels.¹⁶⁰

¹⁵⁸ See amended rule 2a-7(c)(2)(ii); proposed rule 2a-7(c)(2)(vi)(B).

¹⁵⁹ See *infra* section IV.C.4.b.i (discussing this analysis and other analyses regarding net redemption thresholds for mandatory liquidity fees). "Fund days" refers to observations of daily redemptions using a sample set of funds during a particular period of time. Here, the fund days relate to a measure of daily outflows during the week of Mar. 20, 2020. To illustrate the analysis, we observed 43 institutional prime and institutional tax-exempt money market funds over the 5 days that week. This results in 215 (= 43 x 5) fund day observations. Using a net redemption threshold of 5%, we observed that during the week of Mar. 20 funds would have exceeded that threshold on 31% of fund days. This means that net outflows exceeded the 5% threshold on 67 (= 0.31 x 215) fund days during the week of Mar. 20.

¹⁶⁰ See *id.*

If we were to pair a 10% net redemption threshold with a weekly liquid asset threshold, that would further reduce the likelihood of a liquidity fee applying to the first wave of redemptions in a stress period. Moreover, adding a weekly liquid asset threshold to a net redemption threshold, or using a weekly liquid asset threshold on its own, would allow investors to better predict when a liquidity fee may apply, which may contribute to preemptive redemptions. Incorporating a fund's weekly liquid assets into the liquidity fee trigger also may incentivize fund managers to maintain weekly liquid assets above the relevant threshold, creating a disincentive for using available liquidity to meet redemptions and potentially contributing to dilution of remaining shareholders through the sale of longer-term portfolio securities in a stress period. In March 2020, we observed both of these unintended results from the tie between liquidity fees and weekly liquid assets in the current rule. As for a tiered approach, we understand some commenters' views that using a weekly liquid asset threshold to trigger a very small fee amount may be less likely to trigger preemptive runs at the outset. However, a tiered approach that increases the fee amount according to a specific schedule as liquidity declines below predictable thresholds has the risk of "cliff effects." Specifically, a tiered approach may incentivize investors to redeem before a fund crosses a lower, predictable weekly liquid asset threshold to avoid a nonlinear jump in the fee size.

We also are not adopting other liquidity fee approaches that some commenters suggested. A net redemption threshold based on net redemptions over multiple trading days may lead to a threshold that is more predictable than same day net redemptions, as funds provide information about the prior day's net flows on their websites.¹⁶¹ In addition, a multi-day threshold would contribute to operational complexity if the fee applied to redemptions that trigger the fee, as a fund would need to apply a fee to redemptions that occurred on a prior day. Alternatively, if the fee applied to redemptions occurring after the threshold is triggered, this approach would

¹⁶¹ See 17 CFR 270.2a-7(h)(10)(ii)(C).

contribute to a first-mover advantage, as investors redeeming at the onset of market stress would be significantly less likely to incur a fee.

We also are not adopting an approach that allows funds to establish their own criteria for triggering liquidity fees or that relies on board considerations of certain criteria. If institutional funds were permitted to establish their own criteria for triggering liquidity fees, we believe they may use criteria that are unlikely to trigger liquidity fees, particularly if they perceive the potential for reputational harm from imposing fees. With respect to board determinations, as discussed in the Proposing Release, we do not believe an approach that relies on board determinations would result in timely decisions to impose liquidity fees on days when the fund has net redemptions that, due to associated costs to meet those redemptions, will dilute the value of the fund for remaining shareholders.¹⁶² For instance, it may take time for a fund board to convene and determine whether to apply a liquidity fee with respect to any particular stress event. We do not believe that these discretionary approaches would provide an effective tool for addressing institutional shareholder dilution and potential institutional investor incentives to redeem quickly in times of liquidity stress to avoid further losses. Finally, we are not adopting a threshold based on when a fund must sell portfolio securities to satisfy redemptions because, as discussed above, we believe such an approach overlooks the costs redeeming investors impose by removing liquidity from the fund, including subsequent rebalancing costs, and by increasing the likelihood that the fund will need to sell less liquid assets to satisfy future redemptions.

When a fund crosses the 5% net redemption threshold, it must apply a liquidity fee to all shares that are redeemed at a price computed on that day. As a result, when the 5% net redemption threshold is crossed, the fee must be applied to all shares redeemed that day, including redemptions that are eligible to receive a NAV computed on that day even if received by the fund after the last pricing period of the day. This approach will require redeeming

¹⁶² See Proposing Release, *supra* note 6, at n.95 and accompanying text.

investors who cause the fund to exceed the threshold to bear the costs of their redemption activity, irrespective of when they redeem during the day. This approach is different from the current rule, which provides that default liquidity fees begin to apply on the day after the fund has crossed the 10% weekly liquid asset threshold. Compared to the current rule, the approach we are adopting is designed to better align the application of liquidity fees to those investors whose redemptions result in liquidity costs for the fund and to reduce potential first-mover advantages. We recognize, however, that funds and intermediaries may need to update their systems to apply fees to redemptions on the day the net redemption threshold is crossed.¹⁶³

Consistent with the final rule, the proposed swing pricing requirement would have applied a charge to redeeming investors who caused the fund to have net redemptions. However, the design of the net redemption threshold in the final rule is somewhat different from the proposal, which would have applied a charge to redeeming investors based on net redemption activity for each pricing period if a fund had multiple NAV strikes per day. Some commenters expressed concern about separately analyzing flows for each pricing period under the proposal. For example, some commenters stated that institutional money market fund investors tend to redeem in the morning and move remaining cash back into the fund toward the end of the day, making it more likely that funds would need to apply swing pricing in the morning even if investor activity for the day, on net, would not cross a threshold.¹⁶⁴ Some commenters expressed concern about potentially needing to calculate liquidity costs and apply a charge multiple times a day.¹⁶⁵ In addition, some commenters suggested that it would be particularly difficult to calculate

¹⁶³ Under the current rule, the determination to apply discretionary liquidity fees could occur at any time during the day, meaning that funds and intermediaries would need to begin to apply fees to redemptions on that day. *See* 2014 Adopting Release, *supra* note 26, at n.383 and accompanying text. It is our general understanding, in light of the current rule, that there has been an industry expectation that a fund board would determine to impose discretionary fees after the end of a trading day, such that discretionary fees would begin to apply on the next morning.

¹⁶⁴ *See, e.g.*, Invesco Comment Letter; Western Asset Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter.

¹⁶⁵ *See, e.g.*, Northern Trust Comment Letter; U.S. Chamber of Commerce Comment Letter; Invesco Comment Letter; ABA Comment Letter I; IIF Comment Letter; Mutual Fund Directors Forum Comment Letter.

liquidity costs under a tightly compressed timeline, which is especially a concern for funds that offer same-day settlement since the swing pricing adjustment had to occur before a fund published its NAV.¹⁶⁶

The final rule will not distinguish between flows for different pricing periods during the day and, instead, will apply a fee to all investors who redeemed on that day if the threshold is crossed. This addresses commenters' concerns about applying a threshold to individual pricing periods during the day and reduces burdens by requiring no more than one liquidity fee determination per day. We recognize, however, that the requirement to apply a liquidity fee to all shares redeemed on the day the 5% threshold is crossed will likely require some adjustments for funds that offer multiple NAV strikes per day.¹⁶⁷ Specifically, we recognize that an investor may redeem at a pricing period in the morning or early afternoon, before the fund knows that it has crossed the 5% threshold for the day. Under these circumstances, the final rule will necessitate a fund that offers multiple NAV strikes to develop a method for applying the fee to shares redeemed in an earlier pricing period on that day. Funds might take different approaches to address this issue. For instance, among other potential approaches, the fund might apply the liquidity fee charge to the remaining balance in an investor's account if the investor did not redeem the full amount of its shares in the fund. Another approach would be to hold back a portion of the redemption proceeds until the end of the day when the liquidity fee determination is made.¹⁶⁸ Alternatively, a fund might develop a mechanism for taking back a portion of redemption proceeds that the investor has already received. Further, while not required, some funds might choose to reduce the number of NAV strikes they offer or no longer offer multiple

¹⁶⁶ See, e.g., SIFMA AMG Comment Letter; BlackRock Comment Letter; Capital Group Comment Letter.

¹⁶⁷ See *infra* section IV.C.4.b.ii.

¹⁶⁸ See BlackRock Comment Letter (stating that, under its preferred liquidity fee framework, it would plan for its multi-strike NAV funds to pay out a portion of redemption proceeds after each intraday NAV is struck, with the remaining redemption proceeds paid out after the close if no fee is required or reduced by the fee if a fee is required).

NAV strikes for operational ease.¹⁶⁹ Funds and intermediaries may also develop other approaches to address this issue. Depending on a given fund's approach, a redeeming investor may experience a reduction in its access to liquidity relative to current practices. In addition, different approaches may have differing effects on investors or raise tax or other considerations. Overall, we believe it is unlikely that the mandatory liquidity fee would result in a redeeming investor being unable to access same-day liquidity.¹⁷⁰

Some commenters questioned the fairness of applying a charge to certain types of investors who redeem on a given day. For instance, some commenters suggested that it would be unfair to apply a charge to investors who redeem and later purchase an identically sized investment on the same day, because these investors would incur costs despite having no net effect on liquidity.¹⁷¹ One commenter suggested that it would be unfair for a shareholder redeeming a relatively small number of shares to be charged a liquidity fee because another shareholder redeemed a large number of shares and triggered the threshold.¹⁷²

With respect to the application of a fee to an investor who has both redeemed and purchased the fund's shares on the relevant day, the final rule would permit funds to apply liquidity fees based on an investor's net transaction activity for that day. The current rule likewise provides this flexibility.¹⁷³ When the Commission adopted the liquidity fee framework in the current rule, however, several commenters suggested that it may be too operationally difficult and costly for funds to apply liquidity fees to shareholders based on their net activity for the day. As a result, while we are permitting a fund to apply fees based on a shareholder's net activity, this approach is not required, and a fund could instead apply liquidity fees to each

¹⁶⁹ See *infra* section IV.C.4.b.ii.

¹⁷⁰ See *id.*

¹⁷¹ See, e.g., Federated Hermes Comment Letter I; Allspring Funds Comment Letter; Americans for Tax Reform Comment Letter.

¹⁷² See Dechert Comment Letter.

¹⁷³ See 2014 Adopting Release, *supra* note 26, at paragraph accompanying n.380.

redemption separately. As for the application of a liquidity fee to small redemptions, the final rule will require application of liquidity fees regardless of the size of the redemption. Consistent with the Commission's views in 2014 with respect to the current rule's liquidity fee framework, an exception from the mandatory liquidity fee for small redemptions would increase the cost and complexity of the amendments and could facilitate gaming on the part of investors because investors could attempt to fit their redemptions within the scope of an exception.¹⁷⁴

Under the final rule, to determine whether a fund has crossed the 5% threshold, the fund will use information about its net flows for the day that are available within a reasonable period of time after the last pricing time of that day.¹⁷⁵ For example, if the fund's last NAV strike is as of 3 p.m., it would calculate its net flows within a reasonable time period thereafter such that the fund can calculate and apply any fee as of that day. The fund's approach to determining when to calculate net flows should be in its board-approved guidelines on the application of liquidity fees.¹⁷⁶ In determining when to calculate its net flows, a fund should consider historical data on when it typically receives flow information and may also consider the period of time needed to calculate and apply fees. For example, if a fund generally receives substantially all of its flows by 5 p.m. and the process for determining the fee amount will take up to one hour, the rule would not require the fund to wait until 6 p.m. to calculate its net flows if, by 6 p.m., the fund typically has an even larger percentage of its flows. Using the same example, it would not be reasonable for this fund to calculate its net flows at 3:30 p.m., when it generally has less than a majority of its net flows by this time, given that the fund can reasonably expect, based on historical data, to have more net flow information by 5 p.m. and still be able to calculate and apply any fee as of

¹⁷⁴ See *id.* at section III.C.7.a (stating that such an exception for small redemptions would add cost and complexity both as an operational matter—for example, fund groups would need to be able to separately track which shares are subject to a fee and which are not, and create the system and policies to do so—and in terms of ease of shareholder understanding).

¹⁷⁵ See amended rule 2a-7(c)(2)(ii).

¹⁷⁶ See *infra* section II.B.2.b (discussing liquidity fee guidelines that the fund's board must approve if it delegates its responsibility for liquidity fee determinations to the fund's investment adviser or officers).

that later time. This approach is designed to provide a fund with flexibility to calculate daily flows using the best information available to the fund while still being able to offer same-day settlement. Consistent with the proposal and with 17 CFR 270.18f-3 (“rule 18f-3”), an institutional fund with multiple share classes must include net flow activity across all share classes in the aggregate when determining if the fund has crossed the 5% threshold, rather than applying the threshold on a class by class basis.¹⁷⁷

Some commenters stated that it may be difficult for funds to receive sufficient flow information to implement swing pricing.¹⁷⁸ A few commenters suggested that using estimates of flows for swing pricing would raise potential NAV error and liability concerns.¹⁷⁹ A few commenters suggested that funds may need to establish earlier cut-off times for receiving investor orders.¹⁸⁰ As discussed below, the amended rule requires that funds calculate net redemptions based on actual flow data for the day, as opposed to estimates of flows. In addition, in a change from the proposal, we are not requiring funds to separately examine flows for each pricing period of the day or reflect the charge in the form of a NAV adjustment. We believe these changes help mitigate commenters’ concerns about sufficiency of flow information, as well as liability and other risks.

As discussed in the Proposing Release, institutional money market funds often impose order cut-off times to be able to offer same-day settlement, which requires that funds complete Fedwire instructions before the Federal Reserve’s 6:45 p.m. Eastern Time (ET) Fedwire cut-off

¹⁷⁷ See Proposing Release, *supra* note 6, at n.112 and accompanying text.

¹⁷⁸ See, e.g., ICI Comment Letter; Fidelity Comment Letter; Capital Group Comment Letter; Invesco Comment Letter.

¹⁷⁹ See, e.g., Invesco Comment Letter; ICI Comment Letter; SIFMA AMG Comment Letter; ICI Comment Letter; *see also* Western Asset Comment Letter (expressing concern about erroneous application of market impacts if an investor or its intermediary partner notifies the fund of large outflows and then cancels the instructions late in the trading day).

¹⁸⁰ See, e.g., Invesco Comment Letter; State Street Comment Letter; Dechert Comment Letter; IDC Comment Letter; JP Morgan Comment Letter; Federated Hermes Comment Letter I; Fidelity Comment Letter.

time.¹⁸¹ Therefore, we believe many institutional funds would have a sizeable portion of their daily flows by the last pricing time of the day or within a reasonable period of time thereafter. We understand there will be circumstances in which the flow information a fund uses to determine whether it has crossed the net redemption threshold does not reflect the fund's full flows for that day. For example, a fund may receive subsequent cancellations or corrections to correct intermediary or investor errors, which modify the flows. In addition, the fund, or a share class of the fund, may settle some transactions on T+1 and receive flow information for those trades from intermediaries later, although they are eligible to receive the NAV as of the last pricing time.¹⁸² To the extent that a fund received additional flow information after determining that it crossed the 5% threshold, but before applying a liquidity fee, the fund could take the additional flow information into account when determining the amount of the liquidity fee. While using the fund's net flows available within a reasonable period after the last pricing time to determine whether the fund has crossed the 5% threshold may result in false positives and false negatives under certain circumstances, we believe the associated risk is relatively low because we anticipate that funds typically will not impose liquidity fees under normal market conditions under the *de minimis* exception, and institutional money market funds often have net redemptions in periods of stress. Moreover, this risk is justified by the benefits of a framework that is easier for funds to operationalize and likely less prone to error than a framework based on estimated flows. In addition, to the extent that a fund did not have net redemptions of more than 5% within a reasonable period after the last pricing period but subsequently received additional

¹⁸¹ See Proposing Release, *supra* note 6, at section II.B.2. Based on a 2021 analysis of information from CraneData, a majority of the prime institutional money market funds that impose an order cut-off time impose a 3 p.m. ET deadline for same-day processing of shareholder transaction requests. See *id.*; see also Fidelity Comment Letter (stating that its prior publicly offered institutional prime fund that offered same-day settlement used the same order cut-off and NAV strike times to allow the fund to calculate its NAV and wire redemption proceeds as quickly as possible to meet shareholder expectations and cash needs).

¹⁸² See Federated Hermes Comment Letter II (stating that over a 3-month representative period, its institutional prime fund received 35.7% of trade notices after 3 p.m. and that generally settled on T+1).

net redemptions that would cause it to cross the threshold, the fund should consider imposing a liquidity fee under the discretionary fee provision discussed below.

We recognize that institutional money market funds that are used as cash management vehicles for other funds may have particular difficulty obtaining flow information by the last pricing time of the day.¹⁸³ As with other institutional funds that may cross the 5% threshold after the last pricing time of the day, these funds should consider imposing liquidity fees under the discretionary fee provision if they subsequently cross the 5% threshold under market conditions where estimated liquidity costs are not *de minimis*.

In general, the proposed swing pricing requirement would have required institutional money market funds to apply charges to reflect spread and certain other transaction costs for any level of net redemptions. We are not requiring institutional funds to apply a liquidity fee when net redemptions are below the 5% net redemption threshold. After considering comments, we do not believe that the benefits of the proposed approach justify the costs at this time because the structure of money market funds, including minimum liquidity requirements, helps mitigate dilution risk when the fund has low levels of net redemptions. In addition, the vast majority of money market funds already price portfolio securities at the bid price when striking their NAVs.¹⁸⁴ This market practice effectively passes spread costs on to redeeming investors, which means that the proposed application of swing pricing when a fund has low levels of net redemptions would have had limited effect.¹⁸⁵

¹⁸³ See Capital Group Comment Letter.

¹⁸⁴ See ICI Comment Letter; JP Morgan Comment Letter; *see also* Allspring Funds Comment Letter.

¹⁸⁵ See Financial Accounting Standards Board Accounting Standards Codification (“FASB ASC”) 820-10-35-36C. Generally accepted accounting principles (“GAAP”) provide that if an asset measured at fair value has a bid price and an ask price (for example, an input from a dealer market), the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value, and that the use of bid prices for asset positions is permitted but not required for these purposes. *Id.*; *see also* FASB ASC 820-10-35-36D (stating that use of mid-market pricing as a practical expedient for fair value measurements within a bid-ask spread is not precluded). Very generally, mid-market pricing values a security at the average of its bid price and ask price. Since a seller generally asks for a higher price for a security than a buyer bids for that security, the mid-market price is incrementally higher than the bid price for a security, but lower than its ask price.

b. Administration of Mandatory Liquidity Fees

Under the final rule, an institutional fund's board will be responsible for administering the mandatory liquidity fee, but the board can delegate this responsibility to the fund's investment adviser or officers, subject to written guidelines established and reviewed by the board and ongoing board oversight.¹⁸⁶ The current rule, in contrast, does not permit a board to delegate its responsibility for liquidity fee determinations.¹⁸⁷ Boards will be able to delegate liquidity fee determinations under the final rule, unlike under the current rule, to facilitate timely application of liquidity fees on days when the fund has net redemptions that, due to associated costs to meet those redemptions, will dilute the value of the fund for remaining shareholders. This change will better allow funds to address liquidity fee determinations in periods of market stress when it may not be practical to assemble a quorum of the necessary directors in advance of the required application of a fee, particularly because the final rule requires application of fees to redemptions on the same day the 5% net redemption threshold is crossed. Because money market funds already have experience with liquidity fee requirements, it is appropriate to allow for the delegation of liquidity fee determinations. This approach is consistent with other delegable routine board functions under rule 2a-7.

Allowing a board to delegate the responsibilities for making liquidity fee determinations is similar to the proposed requirement for a board-designated swing pricing administrator. Also consistent with the proposal, the board will be responsible for oversight of the anti-dilution mechanism. Specifically, the board will be required to review its written guidelines and the delegate's liquidity fee determinations periodically. This approach is similar to the proposed board oversight of the swing pricing administrator.

¹⁸⁶ See amended rule 2a-7(j). Consistent with rule 2a-7, the fund must maintain and preserve for six years a written copy of these guidelines. The fund also must maintain and preserve for six years a written record of the board's considerations and actions taken in connection with discharging its responsibilities, to be included in the board's minutes. See 17 CFR 270.2a-7(h)(1) and (2).

¹⁸⁷ See 17 CFR 270.2a-7(j) (stating that a board may not delegate determinations related to liquidity fees and temporary gates).

Under the final rule’s delegation provision, a board will need to adopt and periodically review written guidelines (including guidelines for determining the application and size of liquidity fees) and procedures under which a delegate makes liquidity fee determinations. Such written guidelines generally should specify the manner in which the delegate is to act with respect to any discretionary aspect of the liquidity fee mechanism (*e.g.*, whether the fund will apply a fee to a shareholder based on the shareholder’s gross or net redemption activity for the relevant day, the fund’s approach to determining the reasonable period after the last pricing period of the day when the delegate will measure the fund’s flows for purposes of the 5% net redemption threshold). The board will also need to periodically review the delegate’s liquidity fee determinations. This approach is consistent with rule 2a-7’s approach to the delegation of board responsibilities generally and provides a framework for a board effectively to oversee liquidity fees imposed by the fund.

c. Calculation and Size of Mandatory Liquidity Fees

The mandatory liquidity fee provision we are adopting generally will require an institutional fund to determine the amount to charge redeeming investors by making a good faith estimate, supported by data, of the costs the fund would incur if it sold a pro rata amount of each security in its portfolio (*i.e.*, “vertical slice”) to satisfy the amount of net redemptions, including spread costs, such that the fund is valuing each security at its bid price and any other charges, fees, and taxes associated with portfolio security sales (“transaction costs”) and market impacts.¹⁸⁸ This is a change from the current rule, which establishes a default fee of 1% and provides for board discretion to adjust that amount down or up (subject to a 2% limit), but does not prescribe how the board determines the liquidity fee amount. The final rule’s approach, however, is similar to the proposal’s swing pricing requirement and its inclusion of transaction

¹⁸⁸ Amended rule 2a-7(c)(2)(iii)(A); *see* Proposing Release, *supra* note 6, at section II.B.1; *see also* amended rule 31a-2(a)(2) (requiring funds to preserve for the prescribed periods all schedules evidencing and supporting each computation of a liquidity fee by the fund).

costs and good faith estimates of market impacts in the swing factor when net redemptions exceed a specified level. In a change from the proposal, we are modifying the requirements for the liquidity fee calculation in response to comments, as well as providing additional guidance on how a fund may arrive at good faith estimates of the costs. For instance, the final rule will provide that if an institutional fund makes a good faith estimate that liquidity costs are *de minimis*, then the fund is not required to charge a liquidity fee.¹⁸⁹ In addition, if a fund cannot estimate in good faith the costs of selling a pro rata amount of each portfolio security, then the fund will apply a default fee of 1% of the value of the shares redeemed.¹⁹⁰

As discussed in the proposal, the vertical slice approach may help prevent remaining shareholders from bearing the costs associated with fund redemptions and may help discourage investors from redeeming quickly during periods of market stress. Several commenters expressed concern about the proposed vertical slice assumption for estimating the costs imposed by redeeming investors. These commenters generally argued that because money market funds generally meet redemptions with available liquidity from maturing assets, rather than through the sale of a vertical slice of the fund's portfolio, the vertical slice assumption may impose costs on redeeming investors that the fund does not actually incur.¹⁹¹ We understand that a money market fund does not typically sell a vertical slice of its portfolio to meet redemptions. However, the vertical slice approach is designed to account for the costs of leaving remaining investors with a less liquid portfolio and potential rebalancing costs. For example, if investor redemptions are met through daily or weekly liquid assets, the redemptions leave the fund with less liquidity, which increases the likelihood that further redemptions could require the fund to sell less liquid assets or incur costs in rebalancing the portfolio, particularly in periods of market stress when

¹⁸⁹ Amended rule 2a-7(c)(2)(iii)(D).

¹⁹⁰ Amended rule 2a-7(c)(2)(iii)(C).

¹⁹¹ See, e.g., SIFMA AMG Comment Letter; BlackRock Comment Letter; State Street Comment Letter; ICI Comment Letter; Federated Hermes Comment Letter II; Bancorp Comment Letter; ABA Comment Letter I; Invesco Comment Letter; Fidelity Comment Letter; Allspring Funds Comment Letter; Keen Comment Letter; Western Asset Comment Letter.

redemptions may be elevated. If we instead required funds to determine the amount of a liquidity fee based on the direct transaction costs incurred to meet redemptions, a fund would not charge a liquidity fee to redeeming investors until after other investors' redemptions had already extracted much of the fund's liquidity. Such a framework could incentivize preemptive redemptions to avoid liquidity fees in periods of stress and would not account for the full costs of removing liquidity from the fund in these periods.

Consistent with the proposal, the fee has two components: (1) transaction costs; and (2) market impact costs. The transaction costs category includes spread costs, such that the fund is valuing each security at its bid price, and any other charges, fees, and taxes associated with portfolio security sales.¹⁹² Several commenters suggested that money market funds would not need to include spread costs in a charge to redeeming investors because most money market funds already value their portfolio securities at bid prices when striking their NAVs.¹⁹³ In light of this general market practice, we recognize that most funds will not have to include spread costs in their charged liquidity fee because they already use bid pricing. Per the rule, however, the few funds that do not currently use bid pricing will need to include spread costs in the fee.

The second component of the mandatory liquidity fee calculation requires that funds make a good faith estimate of the market impact of selling a vertical slice of a fund's portfolio to satisfy the amount of net redemptions.¹⁹⁴ The required market impact calculation is designed to provide a good faith estimate of the full liquidity costs of selling a vertical slice of a money market fund's portfolio because, for a money market fund's less liquid investments, market

¹⁹² The proposal included within this category of costs specific references to both brokerage and custody fees. A few commenters suggested that brokerage fees would not be applicable to money market funds and custody fees would not increase when a fund has net redemptions. *See* Allspring Funds Comment Letter; *see also* Capital Group Comment Letter. In a change from the proposal, we have removed from the final rule those references, but we expect the transaction costs category to include, as applicable, any charges the fund would incur if it sold a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions, whether in the form of brokerage, custody, or other fees.

¹⁹³ *See* Americans for Tax Reform Comment Letter; Allspring Funds Comment Letter; ICI Comment Letter; JP Morgan Comment Letter; *see also* Federated Hermes Comment Letter I.

¹⁹⁴ *See* amended rule 2a-7(c)(2)(iii)(A).

impacts may impose significant costs on a fund that should be borne by redeeming investors as opposed to remaining investors. This concern may be particularly acute when net redemptions are large or in times of stress and when a fund must sell less liquid investments. In terms of the mechanics, a fund would first establish a market impact factor for each security, which is a good faith estimate of the percentage change in the value of the security if it were sold, per dollar of the amount of the security that would be sold, if the fund sold a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions, under current market conditions. A fund would then multiply the market impact factor by the dollar amount of the security that would be sold.¹⁹⁵

Some commenters stated that it would be challenging to make a good faith estimate of the market impact of selling a vertical slice of a money market fund's portfolio because of the limited nature of the secondary market for funds' portfolio securities.¹⁹⁶ Some commenters expressed particular concern about funds' abilities to make good faith estimates of market impacts in stress events such as March 2020, when some underlying markets are prone to freezing and few transactions occur.¹⁹⁷ Some commenters suggested that the market impact calculations will require estimates in periods of market stress and will result in either errors or incorrect estimates.¹⁹⁸ One commenter suggested that estimating market impact costs *a priori* is challenging and requires judgments for which it may be difficult to have a high degree of confidence.¹⁹⁹ Some commenters suggested that it would take time to undertake the market impact calculation, which may create operational burdens that result in the need for earlier order

¹⁹⁵ See amended rule 2a-7(c)(2)(iii)(A)(2).

¹⁹⁶ See, e.g., ICI Comment Letter; BlackRock Comment Letter.

¹⁹⁷ See, e.g., Federated Hermes Comment Letter II; ICI Comment Letter; BlackRock Comment Letter; SIFMA AMG Comment Letter.

¹⁹⁸ See Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; CCMR Comment Letter; BlackRock Comment Letter; see also Western Asset Comment Letter (suggesting that application of calculation is likely to vary across the industry and lead to inconsistencies).

¹⁹⁹ See ICI Comment Letter.

cut-off times or a reduction of features like multiple NAV strikes per day or same-day settlement.²⁰⁰ Some commenters suggested that funds need additional guidance to make the good faith estimates of market impacts that the rule will require.²⁰¹ One commenter suggested that if funds have too much discretion in making good faith estimates, then it could lead to artificial manipulation.²⁰²

We recognize that market impact costs of a transaction cannot be determined with certainty before the transaction occurs. As a result, the rule requires good faith estimates of these costs, given that a fund generally is not selling a vertical slice of its portfolio to meet net redemptions.²⁰³ While the calculated liquidity fee will be based on good faith estimates and thus will not precisely reflect the liquidity costs of redemptions, this result is preferable to an overly low liquidity fee that does not attempt to include market impact costs, which can be a significant source of liquidity costs. We also recognize the challenges in assessing the amount of a liquidity fee to charge in times of market stress when underlying markets are frozen or transactions are rare. To reduce these challenges, we are providing guidance on one method funds could use to make a good faith estimate of the costs of selling a vertical slice of the fund's portfolio to meet net redemptions. In addition, like the proposal, the final rule permits a fund to make a good faith estimate of costs for each type of security with the same or substantially similar characteristics and apply those good faith estimates to all securities of that type in the fund's portfolio, rather than analyze each security separately.²⁰⁴ Some commenters suggested that the Commission should provide additional guidance on how to determine which securities share substantially

²⁰⁰ See, e.g., State Street Comment Letter; IIF Comment Letter; *see also* Capital Group Comment Letter; Northern Trust Comment Letter.

²⁰¹ See, e.g., BlackRock Comment Letter; ICI Comment Letter (suggesting particular challenges exist for securities that do not trade frequently); Federated Hermes Comment Letter II; Capital Group Comment Letter.

²⁰² See Morgan Stanley Comment Letter.

²⁰³ If a fund were to manipulate its estimates of market impact costs in an effort to increase or decrease the calculated fee amount, without regard to a reasonable assessment of costs under current market conditions, the manipulated estimates would not be "good faith" estimates.

²⁰⁴ See amended rule 2a-7(c)(2)(iii)(B).

similar characteristics.²⁰⁵ As discussed in the proposal, a fund could determine that the liquidity, trading, and pricing characteristics of a subset of securities justifies the application of the same costs and market impact factor to all securities of that type within its portfolio. Further examples of the kinds of criteria that fund might consider when determining how to group securities could include: issuance size, credit worthiness, number of other investors in the same issuance, maturity, industry, and geographic region. Also consistent with the proposal, and as reflected in the amended rule, we continue to believe it would be reasonable to assume a market impact of zero for the fund's daily and weekly liquid assets, since a fund could reasonably expect such assets to convert to cash without a market impact to fulfill redemptions (*e.g.*, because the assets are maturing shortly).²⁰⁶ In addition, in a change from the proposal, we are requiring funds to apply a default fee of 1% of the value of shares redeemed if they are unable to make good faith estimates of these costs. This change is intended to reduce the burden on funds if good faith estimates are not feasible. The default fee provision applies if costs cannot be estimated in good faith and supported by data.

To develop good faith estimates of market impact costs supported by data, funds may consider using historical data to model the reasonably expected price concessions a fund may need to make to sell different amounts of a security under different market conditions. Specifically, among other potential methods for establishing a good faith estimate of the market impact of selling a vertical slice of the fund's portfolio to meet net redemptions, a fund could estimate and document in pricing grids the effect of selling different amounts of the security on a security's price for each group of securities in its portfolio with the same or substantially similar characteristics under different market conditions. Under a grid-based approach, a fund would develop separate grids for different market conditions, such as normal market conditions or

²⁰⁵ See Capital Group Comment Letter; Fidelity Comment Letter; *see also* Federated Hermes Comment Letter II.

²⁰⁶ See amended rule 2a-7(c)(2)(iii)(A)(2); Proposing Release, *supra* note 6, at section II.B.1.

periods with credit stress, liquidity stress, or interest rate stress (or a combination of such stresses).²⁰⁷ Because market impact varies depending on the amount a fund sells, the grids would assess market impact of selling different amounts of a security. For example, a grid might estimate the market impact of selling various percentage- or value-based ranges of a security or group of securities. Thus, on a day a fund has net redemptions of more than 5%, it could calculate market impact by referring to the appropriate grid that reasonably approximates current market conditions and identifying the market impact estimate for the assumed amount to be sold under the required vertical slice analysis. If a fund uses grids to implement its market impact calculations, it generally should review the grids periodically and update them to account for recent market data. Under the rule, if a fund encountered unforeseen market conditions not contemplated in advance and the fund was not able to otherwise make a good faith estimate of its liquidity costs, then the fund would rely on the 1% default liquidity fee provision of the amended rule.²⁰⁸

After estimating the transaction costs and market impact costs of selling a vertical slice of the fund's portfolio to meet net redemptions, the fund will need to determine the liquidity fee amount, as a percentage of the value of the shares redeemed, to fairly allocate these costs across all redemptions. To do so, a fund will need information about gross redemptions from each intermediary for that day.²⁰⁹ We recognize that some intermediaries may currently provide only

²⁰⁷ Funds may be able to leverage existing processes and historical data from existing sources, including stress testing, to develop and maintain such grids.

²⁰⁸ See Federated Hermes Comment Letter II (suggesting that funds could develop schedules of estimated market impact costs stratified by the size of trade for different classes of securities, which would require periodic updating over time as market conditions evolve, but that these schedules may not be able to reflect good faith estimates in stressed conditions).

²⁰⁹ Information about the gross number of shares redeemed will allow the fund to fairly allocate the liquidity costs across all redemptions. If a fund instead allocated the liquidity costs based on net redemptions, the fund would charge a higher fee amount per share redeemed and would collect more than its calculated liquidity costs when applied to each redemption on a gross basis. As a stylized example, assume a fund's estimated liquidity costs are \$100 to sell a vertical slice of the fund's portfolio to meet net redemptions of 10,000 shares at a per share price of \$1.0000 (or net redemptions of \$10,000). On that day, 20,000 shares are redeemed in total (*i.e.*, not netted against purchase activity). Using gross redemptions to determine the fee, the fund charges redeeming investors \$0.005 per share (\$100 liquidity cost divided by gross redemptions of 20,000 shares) and collects the \$100 of estimated liquidity costs (\$0.005 per share

net flow information to funds. In those circumstances, funds may need to update their arrangements with intermediaries to obtain the gross amount of redemptions in a timely manner.²¹⁰ We also recognize, as discussed above, that a fund may not have complete flow information at the time it determines to apply a fee. The fund's board-approved guidelines for implementing mandatory liquidity fees may want to specify the time by which the fund will review its flow information for purposes of calculating the liquidity fee amount. We recognize that this time may differ among funds. For example, some funds (*e.g.*, those that typically settle the vast majority of shareholder purchase and redemption activity on T+0) may use the same flow information they use to determine if the fund has crossed the 5% net redemption threshold. Other funds may determine to wait until a later point, particularly if they have developed a method for applying a fee after a trade is executed. As discussed above, some funds may develop such methods in connection with applying liquidity fees to redemptions that occurred in earlier pricing periods on the relevant day.

As discussed above, institutional funds may cross the 5% net redemption threshold under normal market conditions. Under these circumstances, the calculated liquidity fee amount is likely to be very small. For instance, under normal market conditions a fund generally will be able to assume no market impact for at least 50% of its assets invested in weekly liquid assets.²¹¹ In addition, in many cases, the fund may estimate in good faith that the market impact costs of selling other positions in its portfolio will be minimal if dealer accommodation allows it to transact at or close to bid or mid prices under normal market conditions.²¹² To recognize that

multiplied by 20,000 shares). If the fund were to instead use net redemptions to determine the charge to apply to all redeeming investors, the charge would be \$0.01 per share (\$100 liquidity cost divided by net redemptions of 10,000 shares), and the fund would collect \$200 (\$0.01 per share multiplied by 20,000 shares redeemed).

²¹⁰ See *infra* section IV.C.4.a.ii.

²¹¹ This is also true for the fund's portfolio securities that qualify as daily liquid assets but, by definition, daily liquid assets are also weekly liquid assets.

²¹² This will not be the case for any illiquid securities the fund holds, but a money market fund may not acquire any illiquid security if, immediately after the acquisition, the fund would have invested more than 5% of its total assets in illiquid securities. See 17 CFR 270.2a-7(d)(4)(i). Under rule 2a-7, an illiquid

there are limited benefits to imposing a very small liquidity fee under these circumstances, the final rule does not require a fund to impose the mandatory liquidity fee if its estimated liquidity costs are *de minimis*. Some commenters stated that money market funds would have minimal costs stemming from redemptions under normal market conditions or when the fund holds a significant amount of daily and weekly liquid assets.²¹³ The final rule provides that estimated costs are *de minimis* for purposes of the liquidity fee requirement if the amount of the fee would be less than 0.01% of the value of the shares redeemed.²¹⁴ The *de minimis* exception for liquidity fees is similar to the swing pricing proposal, which would not have required a fund to apply a swing factor if it would not have changed the fund's price per share.²¹⁵

Some commenters suggested that, even in periods of market stress, the required calculation would result in small charges to redeeming investors.²¹⁶ For example, one commenter estimated the impact of swing pricing on its privately offered institutional prime money market fund on March 16, 2020, and seemed to suggest that the price change would have been slightly more than one basis point.²¹⁷ While the commenter did not provide significant detail about its analysis, the March 2020 Form N-MFP filing for this fund shows that the fund had daily liquid assets of around 30% and weekly liquid assets of around 53% at the end of the relevant week. Based on available information, we believe that the commenter was assuming a market impact of

security is a security that cannot be sold or disposed of in the ordinary course of business within seven calendar days at approximately the value the fund ascribed to it. *See* 17 CFR 270.2a-7(a)(18).

²¹³ *See, e.g.*, T. Rowe Comment Letter; Fidelity Comment Letter; Vanguard Comment Letter.

²¹⁴ *See* amended rule 2a-7(c)(2)(iii)(D). This provision does not reflect an interpretation of the term *de minimis* for any other purpose. *See also* Federated Hermes Comment Letter I (stating that if the portfolio cost of processing a net redemption does not move the money market fund's share price, the costs should not be viewed as material to any money market fund investor and the costs should not be assessed).

²¹⁵ *See* 17 CFR 270.2a-7(c)(1)(ii) (providing that an institutional money market fund must compute its price per share for purposes of distribution, redemption, and repurchase by rounding the fund's current net asset value per share to a minimum of the fourth decimal place in the case of a fund with a \$1.0000 share price or an equivalent or more precise level of accuracy for funds with a different share price, for example \$10.000 per share or \$100.00 per share).

²¹⁶ *See, e.g.*, Capital Group Comment Letter; Fidelity Comment Letter.

²¹⁷ *See* Capital Group Comment Letter (stating that spread costs and other transaction costs would not have affected the fund's NAV by more than 1 basis point and suggesting that if the fund had experienced net redemptions of 8% on that day, the market impact would have decreased the fund's NAV by barely more than 3/100 of 1 basis point).

zero for these holdings, which would be consistent with the proposal and the final rule. This contributes to a lower estimated cost, and this cost would rise as the liquidity of the fund's portfolio declines. Another commenter analyzed the size of a swing factor adjustment if a fund held 50% of its assets in weekly liquid assets and applied a 100-basis point upward move in market yield for all other holdings (a historically large move based on a review of changes in three-month LIBOR rates since 2007, according to the commenter) as a proxy of market impact. The commenter stated that, in this analysis, a fund's price per share would only move down by \$0.0007.²¹⁸ Because of rule 2a-7's risk limiting requirements, money market funds generally hold portfolios that are not subject to significant credit or interest rate risks. As a result, changes to a reference rate reflecting these risks, such as LIBOR, are somewhat muted relative to risk indicators applicable to longer-dated or lower credit quality portfolios even during periods of market stress.

We recognize that the estimated liquidity costs may be rather small when a fund holds high levels of daily and weekly liquid assets because, as discussed above, funds can assume a market impact of zero for these assets. Several commenters agreed that the market impact factor for daily liquid assets and weekly liquid assets should be set at zero.²¹⁹ In addition, as discussed above, several commenters suggested that the amount of a fund's liquidity should be a consideration for when a fee is triggered. While we decline to have a built-in liquidity threshold for triggering the application of fees in light of the experience with the current rule in March 2020, the determination of the amount of the fee will take into account the liquidity of the fund's portfolio.

In response to commenters' concerns about the ability of funds to make good faith estimates of the market impact of selling a vertical slice of the fund's portfolio in periods of

²¹⁸ See Fidelity Comment Letter (stating that if the fund had 30% weekly liquid assets and the market impact factor was 150 basis points, the NAV would decline by \$0.0014).

²¹⁹ See Fidelity Comment Letter; Federated Hermes Comment Letter I; *see also* Mutual Fund Directors Forum Comment Letter.

market stress, particularly when the markets for portfolio securities are frozen, the final rule provides that a fund must impose a default liquidity fee of 1% if the fund is not able to make a good faith estimate of its liquidity costs.²²⁰ Like the current rule, the default fee amount is 1% of the value of shares redeemed.²²¹ The new default fee, however, is not connected to a weekly liquid asset threshold and not subject to a decision by the fund's board as to whether the fee is in the best interests of the fund. In addition, unlike the current rule, the fund's board will not have discretion to modify the default fee amount, because the amended rule provides a separate framework for determining the liquidity fee amount based on good faith estimates and available data. Rather, funds will use the default fee when they cannot estimate transaction and market impact costs in good faith, and supported by data. We are persuaded by the comments that it may prove difficult at times for funds to make good faith estimates of liquidity costs in periods of market stress. The 1% default fee is designed to provide money market funds with the ability to apply a fee when the fund determines that its pricing grid, or other method for estimating transaction and market impact costs, does not reflect a good faith estimate of these costs in current market conditions.

We are also amending our recordkeeping rules to require funds to retain records that document how they determine the amount of any liquidity fee.²²² For example, if a fund establishes good faith estimates of its liquidity costs by using pricing grids or otherwise, it must preserve records supporting each fee computation. If the fund applies a 1% default liquidity fee, the fund must preserve records supporting its determination that it cannot establish a good faith estimate of its liquidity costs. If a fund determines that its liquidity costs are less than 0.01% of

²²⁰ See amended rule 2a-7(c)(2)(iii)(C).

²²¹ See 2014 Adopting Release, *supra* note 26, at section III.A.2.c (discussing analysis in support of a default fee of 1% under the current rule); *infra* note 668 and accompanying text (discussing that a 1% default fee is generally consistent with the range of money market fund liquidity costs during March 2020 to the degree that discounts experienced by ultra-short bond exchange traded funds in this period may serve as a proxy for liquidity costs of money market funds).

²²² See amended rule 31a-2. The Commission similarly proposed to amend rule 31a-2 to require funds to preserve records supporting swing factor computations for the proposed swing pricing requirement.

the value of the shares redeemed and therefore the fund is not required to apply a liquidity fee under the rule, the fund must preserve records supporting how it determined that the costs would be less than 0.01%.

The mandatory liquidity fee will not be capped since it is reflective of a fund's estimated liquidity costs. The uncapped fee is consistent with the proposed swing pricing requirement. This is a change, however, as compared to the current rule, which does not allow a fee to exceed 2% of the value of the shares redeemed.²²³ Some commenters suggested that the rule should cap the amount of a liquidity fee to provide transparency to investors about the size of fee they may incur.²²⁴ Some commenters expressed concern that an uncapped charge may cause investors to leave institutional money market funds due to concerns about the possibility of incurring high charges when redeeming.²²⁵ In addition, some commenters suggested that it is unlikely that a fund's liquidity costs would exceed 2% because of the nature of money market fund portfolio holdings, maturity limits, and historical price movements.²²⁶ We believe that the specific parameters in the rule for determining the liquidity fee amount sufficiently mitigate the concerns that a liquidity fee would place an undue restriction on investors' ability to redeem. Further, if a fund were to experience high costs associated with redemptions, we believe it is appropriate for redeeming investors to bear the costs their redemptions create for the benefit of remaining investors. As discussed below, we recognize, however, that it is unlikely a fund's calculated liquidity costs would exceed 2% of the value of shares redeemed.²²⁷ Given our experience with investor behavior in March 2020, we also believe that requiring redeeming investors to internalize the liquidity costs of their redemptions will likely make investors consider potential

²²³ See 17 CFR 270.2a-7(c)(2)(ii)(A).

²²⁴ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; *see also* Northern Trust Comment Letter (suggesting that a swing factor with no upper limit would impede the core functions of money market funds).

²²⁵ See, e.g., JP Morgan Comment Letter; Morgan Stanley Comment Letter; BlackRock Comment Letter.

²²⁶ See, e.g., Federated Hermes Comment Letter I; Western Asset Comment Letter.

²²⁷ See *infra* section IV.C.4.b.v.

redemption requests more carefully in periods of market stress, and will prevent remaining investors from bearing costs imposed on the fund by redeeming investors.

Some commenters suggested approaches for determining the amount of liquidity fees that differ from what we are adopting. For example, several commenters suggested a static fee amount, such as 1% or 2%.²²⁸ Some commenters suggested tiered liquidity fees, where the rule would provide for identified increases to the liquidity fee amount as a fund crossed different thresholds meant to reflect increasing levels of stress.²²⁹ These commenters suggested thresholds for applying liquidity fees that would only trigger in times of significant stress. Because, as discussed above, a fund may cross the 5% net redemption threshold we are adopting under normal market conditions, we do not believe that a static fee amount is appropriate. We anticipate that liquidity costs generally will be *de minimis* under normal market conditions. We also decline to adopt tiered liquidity fee amounts. The commenters suggesting tiered liquidity fee amounts generally set specific weekly liquid asset thresholds for when the fee would increase. We believe this approach would establish “cliff effects” in the rule that investors may seek to avoid through preemptive redemptions, similar to the behavior we observed in March 2020.

3. The Continued Availability of Discretionary Liquidity Fees

We are largely retaining the discretionary liquidity fee provisions in current rule 2a-7, but without the tie between liquidity fees and weekly liquid assets.²³⁰ The Commission proposed to remove the liquidity fee provision in rule 2a-7 for three reasons. First, the current rule’s tie to liquidity thresholds had unintended consequences in March 2020. Second, institutional prime and institutional tax-exempt money market funds would be subject to the proposed swing pricing requirement, which was designed to address shareholder dilution and potential institutional

²²⁸ See, e.g., ICI Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Morgan Stanley Comment Letter (suggesting a liquidity fee of 2%); State Street Comment Letter.

²²⁹ See, e.g., JP Morgan Comment Letter; ICI Comment Letter; BlackRock Comment Letter; SIFMA AMG Comment Letter.

²³⁰ See amended rule 2a-7(c)(2)(i); 17 CFR 270.2a-7(c)(2)(i).

investor incentives to redeem quickly in times of liquidity stress to avoid further losses. Third, the proposed increased liquidity requirements—which would have the largest effect on retail prime funds based on their average historical liquidity levels—should result in these funds being able to manage heavier redemptions than they have experienced during any previous stress period.²³¹ While the Commission did not propose to retain a discretionary liquidity fee provision in rule 2a-7, it did state that funds could use rule 22c-2 under the Act to impose redemption fees to mitigate dilution arising from shareholder transaction activity generally, including indirect costs such as liquidity costs, and asked for comment on whether instead of removing the current liquidity fee provisions, we should modify the circumstances in which a money market fund may impose liquidity fees.²³² Several commenters supported money market funds continuing to have the ability to impose discretionary liquidity fees without a liquidity threshold, whether achieved through rule 2a-7 or rule 22c-2.²³³ One commenter stated that rule 2a-7 would be a more appropriate place to address the implementation of such fees for money market funds.²³⁴

We recognize that a discretionary liquidity fee provides money market fund boards with an additional tool to manage liquidity, particularly in times of stress. As a result, we are retaining a discretionary liquidity fee provision in rule 2a-7.²³⁵ The discretionary liquidity fee we are adopting, like current rule 2a-7, applies to all non-government money market funds. Like the current rule, a government money market fund may choose to rely on the ability to impose liquidity fees.²³⁶ Unlike the current rule, but consistent with the proposal's observation that funds

²³¹ See Proposing Release, *supra* note 6, at section II.A.3.

²³² See 17 CFR 270.22c-2.

²³³ See, e.g., SIFMA AMG Comment Letter; Invesco Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Federated Hermes Fund Board Comment Letter; Americans for Tax Reform Comment Letter; Fidelity Comment Letter; Schwab Comment Letter.

²³⁴ See Federated Hermes Comment Letter I (suggesting that rule 22c-2 is less appropriate for money market funds because it was designed to deter market timing and the history of the rule indicates that it was not meant for money market funds).

²³⁵ See amended rule 2a-7(c)(2)(i).

²³⁶ See 17 CFR 270.2a-7(c)(2)(iii); amended rule 2a-7(c)(2)(i)(A).

could impose fees under rule 22c-2, the fee is not tied to a weekly liquid asset threshold.²³⁷

Although several commenters suggested that investor redemptions in March 2020 were largely driven by concerns about the potential for redemption gates, and less so by concerns about liquidity fees, we continue to believe it is appropriate to remove the tie between discretionary liquidity fees and a liquidity threshold to reduce the possibility of incentivizing preemptive redemptions.²³⁸ Many commenters agreed with removing this tie.²³⁹

Similar to the discretionary liquidity fee under current rule 2a-7, the discretionary liquidity fee we are adopting is designed to allow a fund board (or its delegate) the flexibility to determine when a fee is necessary based on current market conditions and the specific circumstances of the fund.²⁴⁰ Under the amended rule, irrespective of weekly liquid asset levels (or redemption levels), a non-government money market fund will apply a discretionary fee if the board (or its delegate) determines that such fee is in the best interests of the fund. Such discretion, untethered from any weekly liquid asset requirement or prescribed factors for implementation, should lessen the likelihood that sophisticated investors can preferentially predict when a fee is going to be imposed, thus reducing the potential for a run or other adverse effects. Also, the possibility of a fund imposing discretionary liquidity fees during periods of stress is unlikely, on its own, to incentivize investors to preemptively redeem. As discussed, investors are more sensitive to gates than to liquidity fees. Moreover, as the Commission discussed in the Proposing Release, redemptions in March 2020 from retail and institutional non-government funds appear to have been unrelated to declines in market-based prices.²⁴¹ This

²³⁷ Under current rule 2a-7, a money market fund may impose a liquidity fee of up to 2% if the fund's weekly liquid assets fall below 30% of its total assets and the fund's board of directors determines that imposing a fee is in the fund's best interests. *See* 17 CFR 270.2a-7(c)(2)(i).

²³⁸ *See, e.g.*, Invesco Comment Letter; BlackRock Comment Letter; Northern Trust Comment Letter; Fidelity Comment Letter.

²³⁹ *See, e.g.*, Healthy Markets Association Comment Letter; Western Asset Comment Letter; Cato Inst. Comment Letter; Schwab Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; ICI Comment Letter.

²⁴⁰ *See* 2014 Adopting Release, *supra* note 26, at section III.A.2.

²⁴¹ *See* Proposing Release, *supra* note 6, at paragraph accompanying n.48.

suggests that money market fund investors are less sensitive to losses than they are to losing access to liquidity and may not preemptively redeem in response to the possibility of liquidity fees. In addition, while institutional investors reacted quickly to declines in liquidity in March 2020 and redeemed in large sizes, any similar behavior in the future that is intended to avoid a board (or delegate) determination to apply discretionary fees will increase the likelihood of a fund applying a mandatory liquidity fee under the amended rule. Thus, it will be more difficult for institutional investors to preemptively redeem under the amended rule to avoid any type of liquidity fee, including discretionary fees. As for retail investors, they appeared to be less sensitive to the possibility of redemption gates or liquidity fees in March 2020, and retail funds historically have experienced lower levels of redemptions in stress periods than institutional funds. Some commenters suggested that a discretionary liquidity fee would be a useful tool for fund boards when addressing dilution issues or unfair results.²⁴² We agree that funds will benefit by having the ability to mitigate the broader effects of preemptive runs and otherwise manage potential dilution.

The Commission previously expressed some concern that a purely discretionary trigger for liquidity fees could cause some funds to use fees when they are not under stress and in contravention of the principles underlying the Investment Company Act.²⁴³ For example, this would be the case if a fund was not under any liquidity stress and applied a liquidity fee on redemptions to recover losses incurred in the fund's portfolio and to repair the fund's NAV. We would not consider a liquidity fee to be in the best interests of the fund under those circumstances.²⁴⁴ The Commission also expressed concern that a discretionary threshold may result in a board being reluctant to impose fees (*e.g.*, out of fear that a fee would signal trouble for the fund or fund complex or could incite redemptions in other money market funds in the

²⁴² See, *e.g.*, Americans for Tax Reform Comment Letter; CFA Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Schwab Comment Letter; ICI Comment Letter.

²⁴³ See 2014 Adopting Release, *supra* note 26, at paragraph accompanying n.234.

²⁴⁴ See, *e.g.*, *id.*

fund complex). The framework of the new mandatory liquidity fee reduces these concerns with respect to the discretionary liquidity fee provision we are adopting, because it is likely that some number of funds will cross the 5% net redemption threshold for mandatory fees in future periods of stress. This experience with the actual imposition of liquidity fees in the money market fund space should help mitigate the potential stigma of applying discretionary fees. This is in contrast to the current rule's 10% weekly liquid asset threshold for imposing default fees, as no fund has ever been required to consider fees under this provision. Regardless, the new rule requires funds to impose a discretionary fee when such fee is in the best interests of the fund.

The amended rule does not change the best interest standard by which a fund board (or its delegate) would determine to impose a fee. Like current rule 2a-7, the rule we are adopting requires a majority of directors who are not interested persons of the fund to agree that applying a liquidity fee is in the best interests of the fund. In a change from the proposal, we are amending rule 2a-7 to permit fund boards to delegate liquidity fee determinations to the fund's adviser or officers, subject to board guidelines and oversight.²⁴⁵ Under this approach, a fund will need to adopt and periodically review board-approved written guidelines (including guidelines for determining the application and size of liquidity fees) and procedures under which a delegate makes such determinations.²⁴⁶ Such written guidelines generally should specify the manner in which the delegate is to act with respect to any discretionary aspect of the liquidity fee mechanism (*e.g.*, whether the fund will apply a fee to a shareholder based on the shareholder's gross or net redemption activity for the relevant day). The board will also need to periodically review the delegate's liquidity fee determinations. This approach is consistent with rule 2a-7's approach to the delegation of board responsibilities generally and provides a framework for a

²⁴⁵ See amended rule 2a-7(j) (removing language that expressly prohibited a fund's board of directors from delegating determinations related to liquidity fees).

²⁴⁶ Because rule 2a-7 requires a majority of directors who are not interested persons of the fund to agree that applying a liquidity fee is in the best interests of the fund, a majority of directors who are not interested persons of the fund must agree to delegate the liquidity fee determinations to the fund's adviser or officers and must approve the liquidity fee guidelines the fund's adviser or officers would follow.

board effectively to oversee liquidity fees imposed by the fund. Providing boards with the ability to delegate the responsibility for administering discretionary liquidity fees to the fund's adviser or officers also addresses the concerns we expressed in the proposal regarding potential delays in board action to impose a liquidity fee, which may create timing misalignments between an investor's redemption activity and the imposition of liquidity costs.²⁴⁷ This is consistent with some commenters' suggestions that discretionary liquidity fees should be accompanied by enhanced policies, including escalation procedures to ensure timely consideration of the potential fees in times of stress.²⁴⁸

Like the current rule, our amendments will permit money market fund boards to impose a liquidity fee, if in the best interests of the fund, of up to 2%, and do not require a particular approach to determining the level of a fee. This approach is designed to preserve for the board (or its delegate) sufficient flexibility when making determinations regarding discretionary liquidity fees and to allow funds to rely upon current procedures for determining the amount of discretionary fees without the need to make operational or systems changes.²⁴⁹ Some commenters suggested that discretionary liquidity fees (like the current rule) should be capped at 2%.²⁵⁰ We agree that, given the latitude in determining the fee amount to impose, an upper limit on the fee amount continues to be appropriate. Some commenters seemed to suggest a lower cap for discretionary fees, such as 1%, but did not explain why a lower cap would be preferable.²⁵¹ A 2% upper limit will provide fund boards (or their delegates) with greater flexibility to impose a fee that is based on liquidity costs in times of stress than a lower limit. Moreover, 2% is an

²⁴⁷ See Proposing Release, *supra* note 6, at n.95 and accompanying text.

²⁴⁸ See, e.g., Federated Hermes Comment Letter I (suggesting that discretionary fees should reasonably approximate the cost of liquidity); CFA Comment Letter; Schwab Comment Letter.

²⁴⁹ As with mandatory liquidity fees, funds will be required to preserve records supporting the computation of a discretionary liquidity fee. See amended rule 31a-2(a)(2).

²⁵⁰ See, e.g., Federated Herms Comment Letter I; Western Asset Comment Letter.

²⁵¹ See ICI Comment Letter (favoring a discretionary fee with a cap and providing an example of a cap of up to 1%); see also State Street Comment Letter (suggested a fixed fee, perhaps of 1%, when certain conditions are met); Invesco Comment Letters (suggesting a static fee of 1% would be suitable when conditions for market stress exist).

appropriate upper limit because, as discussed below, it is unlikely a fund's liquidity costs would exceed 2% of the value of shares redeemed.²⁵² In addition, given that the current rule contemplates a fee of up to 2%, funds and investors have experience with this metric as a maximum fee for discretionary liquidity fees.

4. Disclosure

Money market funds use Form N-MFP to report portfolio and other information to the Commission each month. In connection with the proposed swing pricing requirement, the Commission proposed to require reporting of the size and frequency of swing factor adjustments to a fund's NAV.²⁵³ Because we are adopting liquidity fee provisions instead of swing pricing, the final amendments to Form N-MFP will instead require money market funds to report certain information related to any application of a liquidity fee. Specifically, we are amending Form N-MFP to require that money market funds report whether they applied a liquidity fee during the reporting period and, if so, information about each liquidity fee applied, including the date, the type of fee, and the amount.²⁵⁴ This reporting requirement will apply to both mandatory and discretionary liquidity fees. To identify the circumstances for applying a liquidity fee (*i.e.*, the fund had daily net redemptions of more than 5% or the fund's board (or delegate) made a best interests determination), funds will be required to identify whether a fee was a mandatory fee or a discretionary fee. In addition, in the case of a mandatory liquidity fee, a fund will be required to identify whether the amount of the fee was based on good faith estimates of the fund's liquidity costs or was a default fee. This information will help investors and the Commission understand the extent to which funds are able to estimate their liquidity costs in good faith. The proposal did not provide for discretionary swing pricing or default charges if liquidity costs

²⁵² See *infra* section IV.C.4.b.v.

²⁵³ See Proposing Release, *supra* note 6, at section II.B.4 (proposing to require money market funds that are not government funds or retail funds to report the number of times the fund applied a swing factor over the course of the reporting period, and each swing factor applied).

²⁵⁴ See Item A.22 of amended Form N-MFP.

could not be estimated, but did discuss and request comment on these alternatives. Moreover, current reporting requirements on Form N-CR about the imposition of liquidity fees, which we are removing in favor of new reporting on Form N-MFP, provide information about whether a fee imposed under the current rule is a discretionary fee or a default fee.²⁵⁵ In addition, in comparison to the proposal and current reporting requirements on Form N-CR, the final amendments provide more specificity about how to report the amount of the charge applied. Specifically, the final amendments will require funds to report the total dollar value of the fee applied to redemptions and the amount of the fee as a percentage of the value of shares redeemed. The percentage-based amount will allow investors and the Commission to compare fees across money market funds and better understand the amount of fees that funds may charge, while the dollar-based amount will provide investors and the Commission with information about the fund's total liquidity costs. Overall, the reporting requirement, like that proposed for swing pricing, will help the Commission monitor the size of the charges funds are applying to redeeming investors, as well as the frequency at which funds apply liquidity fees.

In addition, we are amending the narrative risk disclosure requirement in Form N-1A. The final rule will continue to require money market funds to provide narrative risk disclosure related to liquidity fees, as applicable, in their prospectuses, but we have modified the disclosure to reflect the amended liquidity fee framework.²⁵⁶ The required narrative disclosures relate to both the mandatory and discretionary liquidity fees and vary depending upon the type of money market fund. As proposed, we are removing from the required narrative disclosures references to the suspension of redemptions because money market funds cannot impose gates under rule 2a-7 as amended.

²⁵⁵ See Part E of current Form N-CR (requiring information about the fund's imposition of a liquidity fee, including the fund's weekly liquid asset level, which identifies whether a fee under the current rule is a discretionary fee or a default fee).

²⁵⁶ See Item 4(b) of amended Form N-1A.

The amendments also modify the required disclosures in a fund’s Statement of Additional Information (“SAI”) that currently relate to both the imposition of liquidity fees and the suspension of fund redemptions.²⁵⁷ The proposal would have removed the disclosures related to liquidity fees in light of the swing pricing mechanism and the proposed elimination of fees and gates from rule 2a-7. In a change from the proposal, the amended form will include liquidity fee disclosures designed to reflect the new liquidity fee mechanism. In a change from current Form N-1A, the required liquidity fee disclosures are no longer tied to weekly liquid asset thresholds. Also, amended Form N-1A, like the proposal, removes references to the suspension of fund redemptions. These changes reflect the amendments to rule 2a-7 that remove the tie between weekly liquid assets and liquidity fees and remove redemption gates from the rule.

The modified SAI disclosure will, like the current form, require a fund to report information about any liquidity fees imposed during the past 10 years, including the date a liquidity fee was imposed and the amount of the fee. The required SAI disclosure is similar to what funds will report in amended Form N-MFP, except the SAI disclosure will provide investors with a historical perspective over a 10 year look-back period. In addition, consistent with the proposal, because we are no longer requiring funds to report on Form N-CR when they impose liquidity fees, we are removing the current requirement to incorporate in the SAI disclosure, as appropriate, any information the fund reported on Form N-CR regarding the fee event and to point investors to the fund’s Form N-CR filing for additional information.

The amended disclosure related to liquidity fees will improve transparency related to money market funds as well as assist investors in their assessment of a fund’s overall risk profile. Moreover, the disclosure will provide investors and the Commission with historic context and a useful understanding of past stress events. Current and prospective fund investors could use this

²⁵⁷ See Item 16(g) of amended Form N-1A.

information as one factor to compare the potential costs of investing in different money market funds.

5. Tax and Accounting Implications of Liquidity Fees

In addition to the operational and similar concerns commenters raised about the proposed swing pricing requirement, some commenters raised questions about the tax and accounting implications of the proposed requirement. Because a liquidity fee framework is part of current rule 2a-7, adopting a liquidity fee provision instead of swing pricing generally will resolve most of commenters' questions and concerns. The specific tax treatment of any liquidity fee regime, however, may depend on how the regime is structured, particularly with respect to timing.

In response to the proposed swing pricing requirement, several commenters raised concerns related to potential increased tax reporting burdens, including whether the wash sale rules would apply to redemptions in floating NAV money market funds using swing pricing.²⁵⁸ Because the tax treatment of money market fund liquidity fees is already established, as current rule 2a-7 already includes liquidity fee provisions, our adoption of a modified liquidity fee framework avoids commenters' tax concerns associated with swing pricing. As the Commission has previously discussed, we understand that shareholders incurring a liquidity fee would generally treat the fee as offsetting the shareholder's amount realized on the redemption (decreasing the shareholder's gain, or increasing the shareholder's loss, on redemption). Funds would generally treat such fees as having no associated tax effect for the fund.²⁵⁹ In addition, tax regulations provide for a simplified method of accounting for an investor's gain or loss on money market fund shares, where the gain or loss is based on the change in the aggregate value

²⁵⁸ See, e.g., Northern Trust Comment Letter; Capital Group Comment Letter; ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter II; Americans for Tax Reform Comment Letter; Bancorp Comment Letter.

²⁵⁹ See 2014 Adopting Release, *supra* note 26, at section III.A.6 (discussing the tax treatment of redemption fees under rule 22c-2 and stating the belief that liquidity fees would receive the same Federal income tax treatment); see also Investment Income and Expenses (Including Capital Gains and Losses), Internal Revenue Service (IRS) Publication 550, at 41 ("The fees and charges you pay to acquire or redeem shares of a mutual fund are not deductible... A fee paid to redeem the shares is usually a reduction in the redemption price (sales price)."), available at <https://www.irs.gov/pub/irs-pdf/p550.pdf>.

of the investor's shares during a selected computation period and on the net amount of purchases and redemptions during that period (the "NAV method").²⁶⁰ Because under the NAV method a gain or loss is not associated with any particular redemption of shares, use of the NAV method also addresses any effect that a liquidity fee would have under the wash sale rule.²⁶¹ In addition, even if a shareholder does not use the NAV method, redemptions from floating NAV money market funds are not treated as part of a wash sale.²⁶² As discussed above, however, in the case of a fund that offers multiple NAV strikes per day, we recognize that there could be tax considerations associated with applying a liquidity fee to redemptions that occurred before the last pricing period, depending on a fund's chosen approach to applying a fee to such redemptions.

Some commenters discussed potential accounting implications of swing pricing. For example, some commenters questioned whether money market fund shares held by corporate entities would still qualify as cash equivalents under the swing pricing proposal.²⁶³ Current U.S. GAAP defines cash equivalents as short-term, highly liquid investments that both are readily convertible to known amounts of cash and are so near their maturity that they present insignificant risk of changes in value because of changes in interest rates.²⁶⁴ The Commission's continued position is that under normal circumstances, an investment in a money market fund that has the ability to impose a fee under rule 2a-7(c)(2) qualifies as a "cash equivalent" for purposes of U.S. GAAP.²⁶⁵ Under normal market conditions, we generally would not expect the

²⁶⁰ See Method of Accounting for Gains and Losses on Shares in Money Market Funds; Broker Returns With Respect to Sales of Shares in Money Market Funds, 81 FR 44508 (July 8, 2016); 26 CFR 1.446-7.

²⁶¹ See 26 U.S.C. 1091. The "wash sale" rule applies when shareholders sell securities at a loss and, within 30 days before or after the sale, buy substantially identical securities. Generally, if a shareholder incurs a loss from a wash sale, the loss cannot be recognized currently and instead must be added to the basis of the new, substantially identical securities, which postpones the loss recognition until the shareholder recognizes gain or loss on the new securities.

²⁶² See Rev. Proc. 2014-45 (2014-34 IRB 388), available at <https://www.irs.gov/pub/irs-drop/rp-14-45.pdf>.

²⁶³ See, e.g., ICI Comment Letter; Bancorp Comment Letter (stating that corporate investors rely on the treatment of money market funds as cash and cash equivalents rather than investment securities).

²⁶⁴ See FASB Accounting Standards Codification ("FASB ASC") Master Glossary.

²⁶⁵ See 2014 Adopting Release, *supra* note 26, at section III.A.7.

amount of a liquidity fee a fund charges to prevent a shareholder from continuing to classify the fund's shares as "cash equivalent" under U.S. GAAP. However, as is the case today, if events that give rise to credit or liquidity issues for funds occur, shareholders would need to reassess if their investments in that money market fund would continue to meet the definition of a cash equivalent.²⁶⁶ If events occur that cause shareholders that are corporate entities to determine that their money market fund shares are not cash equivalents, the shares would need to be classified as investments, and shareholders would have to account for them accordingly.²⁶⁷

As for accounting implications of swing pricing for affected money market funds, some commenters raised questions about how to best reflect the use of swing pricing in financial statements and other disclosures. For instance, some commenters questioned the manner in which a fund should disclose its use of swing pricing in its financial statements and other materials.²⁶⁸ Another commenter suggested that if the proposed swing pricing requirement modified the method of accounting for gains or losses in money market fund shares, then it would increase the burden on investors, money market funds, and brokers who would be required to implement new mechanisms to accommodate the changes.²⁶⁹ Another commenter suggested that swing pricing could cause short term volatility in a fund's NAV, which could present internal accounting challenges should the recorded value of an investor's cash position appear to fluctuate on a day to day basis.²⁷⁰ This commenter suggested that a liquidity fee mechanism would be preferable to swing pricing in light of the accounting concerns. Like the tax implications discussed above, our move to a liquidity fee requirement avoids these potential

²⁶⁶ *See id.*

²⁶⁷ *Id.*

²⁶⁸ *See* Capital Group Comment Letter; *see also* Comment Letter of Deloitte & Touche LLP (Apr. 11, 2022) ("Deloitte Comment Letter") (requesting clarification as to whether a money market fund would be required to include the effect of swing pricing on total return in the financial highlights).

²⁶⁹ SIFMA AMG Comment Letter; *see also* Deloitte Comment Letter (recommending guidance on the appropriate methodologies to calculate the per share impact of swing pricing for each class of shares).

²⁷⁰ *See* JP Morgan Comment Letter.

issues. Instead, funds are able rely upon existing guidance and established practices to address these accounting items.

C. Amendments to Portfolio Liquidity Requirements

1. Increase of the Minimum Daily and Weekly Liquidity Requirements

We are adopting, as proposed, the requirements that a money market fund, immediately after acquisition of an asset, hold at least 25% of its total assets in daily liquid assets and at least 50% of its total assets in weekly liquid assets.²⁷¹ Currently, the daily and weekly liquid asset requirements in rule 2a-7 are 10% and 30%, respectively.²⁷² Assets that make up daily liquid assets and weekly liquid assets are cash or securities that can readily be converted to cash within one business day or five business days, respectively.²⁷³ Generally, the daily and weekly liquid asset requirements are designed to support funds' ability to meet redemptions from cash or securities convertible to cash even in market conditions in which money market funds cannot rely on a secondary or dealer market to provide liquidity.²⁷⁴ As the Commission stated in the Proposing Release, we believe that the increased daily and weekly liquidity requirements will provide a more substantial buffer that would better equip money market funds to manage significant and rapid investor redemptions, like those experienced in March 2020, while maintaining funds' flexibility to invest in diverse assets during normal market conditions.

²⁷¹ See amended rule 2a-7(d)(4)(ii) and (iii). Tax-exempt money market funds are not subject to the daily liquid asset requirements due to the nature of the markets for tax-exempt securities and the limited supply of securities with daily demand features. See 2010 Adopting Release, *supra* note 26, at n.243 and accompanying text. This would continue to be the case under the amended rule.

²⁷² See 17 CFR 270.2a-7(d)(4)(ii) and (iii).

²⁷³ Daily liquid assets are: cash; direct obligations of the U.S. Government; certain securities that will mature (or be payable through a demand feature) within one business day; or amounts unconditionally due within one business day from pending portfolio security sales. See 17 CFR 270.2a-7(a)(8). Weekly liquid assets are: cash; direct obligations of the U.S. Government; agency discount notes with remaining maturities of 60 days or less; certain securities that will mature (or be payable through a demand feature) within five business days; or amounts unconditionally due within five business days from pending security sales. See 17 CFR 270.2a-7(a)(28).

²⁷⁴ See 2010 Adopting Release, *supra* note 26, at n.213 and accompanying and following text.

Commenters generally supported increasing the current minimum daily and weekly liquidity requirements for money market funds.²⁷⁵ In particular, commenters expressed support for the Commission’s overall goal of providing a stronger liquidity buffer for money market funds to provide liquidity during market stress events and/or prolonged periods of redemption pressure.²⁷⁶ Some industry commenters and several academic and advocacy group commenters supported the 25% daily liquid asset and 50% weekly liquid asset requirements in the proposal.²⁷⁷ Moreover, some commenters urged the Commission to consider higher liquidity thresholds relative to the proposal.²⁷⁸ A commenter supporting the proposed minimum liquidity requirements asserted that attempting to increase liquidity once a market stress event has occurred is much more challenging than requiring a fund to hold a healthier percentage of liquid assets prior to a stress event in order to prevent, or at the least lessen, liquidity pressure on the fund.²⁷⁹

Many commenters, however, urged the Commission to adopt more modest increases to the daily and weekly liquid asset requirements.²⁸⁰ Many of these commenters suggested required thresholds of 20% daily liquid assets and 40% weekly liquid assets.²⁸¹ Commenters expressed that a more modest increase to the liquidity requirements would be more appropriate given that the amendments to the current liquidity fee and redemption gate framework would allow money

²⁷⁵ See, e.g., SIFMA AMG Comment Letter; ICI Comment Letter; BlackRock Comment Letter; Invesco Comment Letter.

²⁷⁶ *Id.*

²⁷⁷ See, e.g., Fidelity Comment Letter (expressing support for the proposed liquidity requirements with respect to institutional prime funds only); Schwab Comment Letter; Vanguard Comment Letter; Americans for Financial Reform Comment Letter; ICD Comment Letter.

²⁷⁸ See Systemic Risk Council Comment Letter; Profs. Cecchetti and Schoenholtz Comment Letter; Prof. Hanson *et al.* Comment Letter (suggesting that if the rule’s objective is to reduce the likelihood of future government support, minimum liquidity requirements would likely have to be set higher than proposed).

²⁷⁹ See Fidelity Comment Letter.

²⁸⁰ See, e.g., ICI Comment Letter; CFA Comment Letter; SIFMA AMG Comment Letter; State Street Comment Letter; Western Asset Comment Letter; Healthy Markets Association Comment Letter.

²⁸¹ *Id.*; cf. IIF Comment Letter (suggesting 20% daily liquid asset and 30% weekly liquid asset thresholds); Bancorp Comment Letter (suggesting 25% daily liquid asset and 40% weekly liquid asset thresholds); Morgan Stanley Comment Letter (suggesting 25% daily liquid asset and 45% weekly liquid asset thresholds).

market funds to use existing liquid assets more freely to meet redemptions.²⁸² Several commenters asserted that the bright line established by the current rule's regulatory link between a fund's weekly liquid asset levels and the possibility of a fund imposing a fee or gate was the primary incentive for money market fund managers to maintain weekly liquid asset levels above 30% in March 2020, rather than using those assets to meet redemptions.²⁸³ These commenters suggested that, absent this regulatory link, funds could have met redemptions in March 2020 as securities naturally matured into weekly liquid assets, without the need to sell less liquid, longer term assets. Accordingly, one commenter, in response to our analysis in the Proposing Release of the redemption patterns of institutional prime funds in March 2020 using hypothetical portfolios, asserted that 40% weekly liquid assets is more than sufficient liquidity to accommodate substantial ongoing redemptions absent a regulatory link between weekly liquid assets and the potential imposition of redemption gates.²⁸⁴ Alternatively, a commenter suggested that the Commission should first analyze how funds react and operate under a regulatory framework that removes redemption gates before adjusting the minimum liquidity requirements.²⁸⁵

Several commenters also asserted that increasing the minimum liquidity requirements as proposed could reduce the spread between prime and government money market funds, resulting in lower investor demand for prime funds.²⁸⁶ Specifically, commenters suggested that higher liquid asset requirements would result in lower yields for investors in prime funds because funds may have to sell off longer-term, higher-yielding securities in favor of short-term, lower-yielding

²⁸² See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; T. Rowe Comment Letter; Invesco Comment Letter.

²⁸³ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; T. Rowe Comment Letter; Invesco Comment Letter.

²⁸⁴ See ICI Comment Letter (asserting that a fund with 40% weekly liquid assets would have decreasing weekly liquid assets in the first several weeks, but would stabilize after five weeks at nearly 30% weekly liquid assets, assuming the redemption patterns of prime money market funds in Mar. 2020); see also Proposing Release, *supra* note 6, at section II.C.1.

²⁸⁵ See SIFMA AMG Comment Letter.

²⁸⁶ See, e.g., ICI Comment Letter; JP Morgan Comment Letter; Federated Hermes Comment Letter I.

securities to meet liquidity requirements.²⁸⁷ Moreover, some commenters expressed that decreased investor demand for prime money market funds could have unintended consequences for the short-term funding market, such as reducing funding to private companies and financial institutions.²⁸⁸ Some of these commenters also expressed that lower yields for prime funds could push investors to non-money market fund alternatives, including more opaque or less regulated investment products.²⁸⁹

In addition, some commenters argued that imposing higher minimum liquidity requirements, as a practical matter, could result in de facto higher minimums than imposed by regulations.²⁹⁰ These commenters asserted that, despite the removal of redemption gates from rule 2a-7, institutional investors will continue to view weekly liquid assets as the primary metric of liquidity and health of a money market fund. Consequently, these commenters suggested that fund managers will still be incentivized to maintain liquid assets above the regulatory minimums, particularly since fund liquidity levels will continue to be publicly available on a fund's website. Conversely, a commenter asserted that, absent a regulatory tie between liquidity levels and the potential imposition of a redemption gate, fund managers could be incentivized to carry less liquidity.²⁹¹ Some commenters also suggested that a fund that consistently maintains liquidity closer to the minimum requirements likely does so because it has determined that holding more liquid assets is unnecessary to effectively manage its redemptions and overall liquidity profile.²⁹²

²⁸⁷ See, e.g., Dechert Comment Letter; Americans for Tax Reform Comment Letter.

²⁸⁸ See, e.g., ICI Comment Letter; Federated Hermes Comment Letter I; Invesco Comment Letter; CCMR Comment Letter.

²⁸⁹ See CCMR Comment Letter; see also Federated Hermes Comment Letter I; SIFMA AMG Comment Letter.

²⁹⁰ See BlackRock Comment Letter; SIFMA AMG Comment Letter; Sen. Toomey Comment Letter.

²⁹¹ See JP Morgan Comment Letter.

²⁹² See SIFMA AMG Comment Letter; Federated Hermes Comment Letter I (arguing that “managers will not attempt to skirt regulatory minimums and risk operating a portfolio with improper liquidity levels as doing so could jeopardize a particular fund’s continued operations”).

Some commenters suggested that minimum liquidity requirements should vary based on a money market fund's investor base.²⁹³ For example, in light of the fact that the outflows for retail prime money market funds were not as heavy as those experienced by institutional prime money market funds in March 2020, some commenters urged the Commission to consider whether an increase in liquidity minimums for retail funds is necessary to the same degree as for institutional money market funds.²⁹⁴ Some commenters asserted that, relative to institutional investors, historically retail investors display more stable and predictable redemption behavior in all market conditions.²⁹⁵ These commenters therefore believe that it would be more appropriate for the Commission either to not increase the liquidity requirements or to implement more modest increases for retail money market funds. In addition, one commenter suggested that liquidity requirements should vary depending on a fund's investor concentration, with greater liquidity requirements for funds with larger levels of investor concentration.²⁹⁶

Some commenters opposed increasing rule 2a-7's current minimum liquidity requirements for any type of money market fund.²⁹⁷ A few of these commenters reasoned that the rule's current requirement for a money market fund to hold sufficient liquidity to meet reasonably foreseeable shareholder redemptions renders further increases in the rule's minimum liquidity requirements unnecessary.²⁹⁸ Further, one commenter explained that this obligation should continue to be tailored using properly considered know-your-customer procedures, which provide fund managers with investor information that is helpful for managing fund liquidity.²⁹⁹ Conversely, another commenter stated that there are limits to know-your-customer procedures,

²⁹³ See, e.g., Fidelity Comment Letter; Americans for Tax Reform Comment Letter; SIFMA AMG Comment Letter; T. Rowe Comment Letter; CFA Comment Letter.

²⁹⁴ *Id.*

²⁹⁵ See Fidelity Comment Letter; T. Rowe Comment Letter.

²⁹⁶ See Comment Letter of HSBC Global Asset Management (Apr. 11, 2022) ("HSBC Comment Letter").

²⁹⁷ See Federated Hermes Comment Letter I; Sen. Toomey Comment Letter; T. Rowe Comment Letter.

²⁹⁸ See Federated Hermes Comment Letter I; HSBC Comment Letter.

²⁹⁹ See Federated Hermes Comment Letter I (stating that know-your-customer processes help a fund manager understand key information about the fund's investor base, such as investor type and liquidity preferences).

such as the use of omnibus accounts masking individual shareholder activity and identity, and the reality that some investors may have unpredictable cash flow needs that even the investor cannot predict.³⁰⁰

We are adopting, as proposed, requirements for money market funds to hold a minimum of 25% daily liquid assets and 50% weekly liquid assets because we believe it is important for money market funds to have a strong source of available liquidity to meet daily redemption requests, particularly in times of stress, when liquidity in the secondary market can be less reliable for many instruments in which they invest. Although we considered lower liquidity requirements relative to the proposed thresholds, our analysis suggests that 25% daily liquid assets and 50% weekly liquid assets paired with our other amendments would be sufficient to allow most money market funds to manage their liquidity risk in a market crisis, while lower minimum levels of liquidity may not provide an adequate buffer during a market crisis.³⁰¹ For example, the largest weekly outflow in March 2020 was around 55%, and the largest daily outflow was about 26% (both well above the respective weekly liquid asset and daily liquid asset thresholds of 30% and 10%).

In response to a commenter's conclusion that, pursuant to its data analysis, daily liquid asset and weekly liquid asset minimums of 20% and 40%, respectively, would serve as sufficient levels of liquidity during a market stress event after we remove the connection between weekly liquid assets and the consideration of gates, we conducted further analysis to probe this assertion.³⁰² Our updated analysis takes into account the potential effect of removing the tie between liquidity thresholds and fees and gates. It also modifies certain assumptions in the commenter's analysis that are not in line with the observed variations in redemption patterns

³⁰⁰ See HSBC Comment Letter.

³⁰¹ See *infra* section IV.D.3.a (discussing the potential effect of various liquidity thresholds).

³⁰² See ICI Comment Letter (asserting that an institutional prime fund holding 40% weekly liquid assets can withstand 10 weeks of 16% redemptions and still have a weekly liquid assets above 25%). See *infra* section IV.C.2.a (discussing our updated analysis in more detail).

across funds during the stress of March 2020 and typical portfolio constructions of funds.³⁰³

With these adjustments, our analysis suggests that a significant number of funds would not be able to withstand multiple weeks of redemption stress if they began with 40% weekly liquid assets.³⁰⁴ Specifically, our updated analysis observes that after two weeks of redemptions akin to the most significant week of outflows in March 2020, 30% of these portfolios would have weekly liquid assets of 13% or less. In contrast, 30% of portfolios that began with weekly liquid assets of 50% would have weekly liquid assets of 32% or less by the end of the two week period. Accordingly, we continue to believe that 25% daily liquid assets and 50% weekly liquid assets are appropriate minimum liquidity requirements that will better equip money market funds to manage significant and rapid investor redemptions in times of stress.

As discussed in the Proposing Release, the liquidity minimums that we are adopting are generally close to the average liquidity levels prime money market funds have maintained over the past several years.³⁰⁵ We agree with commenters that at the higher levels of liquidity that funds typically have maintained, if money market funds had used their liquidity buffers in March 2020, many would have been able to fulfill redemption requests without selling longer-term portfolio securities or receiving sponsor support. However, we understand that rule 2a-7's fee and gate provisions have been a significant motivating factor for funds to maintain liquidity buffers well above the current regulatory minimums. Accordingly, the removal of the link between a fund's liquidity and the potential imposition of fees and gates on its own may result in funds subsequently reducing their liquidity levels.³⁰⁶ As we saw in March 2020, markets can

³⁰³ See *infra* section IV.D.3.a (detailing the Commission's review of the commenter's data assumptions and providing additional economic analysis for various liquidity minimum levels).

³⁰⁴ *Id.*

³⁰⁵ See Proposing Release, *supra* note 6, at section II.C.1. According to analysis of Form N-MFP data from Oct. 2016 to Mar. 2023, the average amount of daily liquid assets and weekly liquid assets for prime money market funds was 38% and 54%, respectively. See also section IV.C.2.b, at Table 5 (reflecting the distribution of daily weekly liquid assets and weekly liquid assets among different types of prime money market funds, as of March 2023).

³⁰⁶ See Proposing Release, *supra* note 6, at n.81 (discussing a comment letter on the 2020 President's Working Group on Financial Markets report that stated that for the more than 6 years that the 30% weekly liquid

become illiquid very rapidly in response to events that fund managers may not anticipate. The failure of a single fund to anticipate such conditions may lead to a run affecting all or many funds. We continue to think it would be ill-advised to rely solely on the ability of managers to anticipate liquidity needs, which may arise from events the money market fund manager cannot anticipate or control. As expressed by a commenter, predicting cash flow needs can be challenging for investors and fund managers.³⁰⁷ Accordingly, requiring a higher minimum amount of daily liquid assets and weekly liquid assets for all money market funds, as we are adopting in this release, limits the potential effect on fund liquidity that may otherwise arise from removing the fee and gate provisions from rule 2a-7, while also providing an additional level of liquid assets for funds to meet redemptions during times of market stress.

We generally disagree with commenters' assertions that the minimum liquidity requirements that we are adopting will have a significantly negative effect on the yield of prime money market funds or the demand for such funds. As discussed above, over the past several years prime money market funds generally have maintained levels of liquidity that are close to or that exceed the thresholds we are adopting in this release. This demonstrates that funds have the ability to operate at these minimum liquidity levels while continuing to serve as an efficient and diversified cash management tool for investors.³⁰⁸ Accordingly, we believe that concerns raised by commenters related to reduced lending in the short-term funding market and pushing investors into alternative products are overstated.³⁰⁹ Moreover, investors could allocate flows

asset threshold was in effect but not connected to fee and gate provisions, 68% of prime money market funds and 10% of tax-exempt money market funds dropped below the 30% weekly liquid asset threshold at least once, and at least one prime money market fund was below this threshold in nearly each week during this period).

³⁰⁷ See HSBC Comment Letter.

³⁰⁸ In addition, Form N-MFP data from 2022 reflects that prime money market funds have increased their daily and weekly liquidity levels while simultaneously increasing assets, further demonstrating that prime money market funds can maintain higher liquidity levels without reducing investor demand. See also *infra* section IV.C.2.b (discussing mitigating factors to the potential costs of the final amendments if, in fact, the amended liquidity requirements were to result in decreased demand for prime money market funds, as suggested by several commenters).

³⁰⁹ See also *infra* section IV.C.2.b (discussing that the final amendments will have a limited impact on

from prime money market funds into government money market funds, which may better match the risk tolerance and yield expectations for certain investors with cash management and capital preservation as their primary objectives. In addition, while we acknowledge that requirements to provide daily liquid asset and weekly liquid asset levels on funds websites and on Form N-MFP may encourage funds to hold liquidity buffers above the regulatory minimums, as some commenters suggested, this would not be required by our rules nor would it be necessarily an expected outcome. This is not necessarily an expected outcome because, relative to the current lower minimums, it seems less likely that an investor will be concerned that a fund will rapidly run out of daily or weekly liquid assets merely because its liquidity has dropped below the 25% or 50% thresholds we are adopting. In addition, since the final amendments remove the regulatory link between minimum liquidity levels and the potential imposition of fees and gates, it is also likely that investors will be less sensitive to funds approaching or temporarily dropping below a liquidity minimum.

With the exception of tax-exempt money market funds, which will continue to be exempt from the daily liquid asset requirements, the amendments do not establish different liquidity thresholds by type of fund.³¹⁰ As discussed in the Proposing Release, outflows in March 2020 were more acute in institutional prime money market funds than in retail prime money market funds. We do not know that redemption patterns would be the same in future periods of market turmoil, however, particularly without official sector intervention to support short-term funding markets.³¹¹ In addition, while the amendments will require retail prime funds to maintain higher levels of liquidity than they have historically maintained on average, the resulting larger liquidity

commercial paper markets since money market funds hold less than a quarter of outstanding commercial paper, while also acknowledging that if the final amendments were to result in less demand in the commercial paper markets, other investors, such as mutual funds or insurance companies, may absorb some of the newly available supply).

³¹⁰ See *supra* note 271 (discussing the current exception tax-exempt funds have from the required daily liquid asset investment minimum).

³¹¹ As an example, if retail investors are merely slower to act initially in periods of market stress, retail prime and retail tax-exempt funds may need higher liquidity levels to meet ongoing redemptions if a stress period is not relatively brief.

buffers will increase the likelihood that these funds can meet redemptions without significant dilution, which influenced our decision not to apply mandatory liquidity fee requirements to retail funds as part of this rulemaking.³¹² Moreover, retail prime money market funds invest in markets that are prone to illiquidity in stress periods, and increased liquidity requirements will help provide flexibility so that these funds can meet redemptions in times of stress. Also, while we believe that unique factors like investor concentration are a relevant consideration when determining if a fund should have additional liquidity above the regulatory minimums, we are not adopting minimum liquidity requirements that vary depending on a fund's investor concentration, as suggested by a commenter.³¹³ We believe that a uniform approach encourages sufficient liquidity levels across all money market funds, thereby reducing the potential incentive for investors to flee from funds that might otherwise be perceived as holding insufficient liquidity during market stress events.

Lastly, we agree that money market funds have a general obligation to hold sufficient liquidity to meet reasonably foreseeable shareholder redemptions and any commitments the fund made to shareholders.³¹⁴ Policies and procedures related to onboarding shareholders, including know-your-customer processes, are important tools to gather information about the characteristics and liquidity needs of a fund's shareholders. However, we agree with the view expressed by a commenter that investors may have unpredictable cash flow needs that are challenging for the investor, much less the fund manager, to predict.³¹⁵ Further, this unpredictability can be exacerbated during market stress events. We also agree with the sentiment expressed by a commenter that requiring a level of liquidity designed to provide a buffer in the event of market stress at all times (*i.e.*, prior to a market stress event) is more

³¹² Based on analysis of Form N-MFP data, retail prime money market funds maintained average daily liquid assets of 30% and average weekly liquid assets of 46% during the period of Oct. 2016 through Mar. 2023. In contrast, institutional prime fund averages during this period were 44% and 59%, respectively.

³¹³ *See supra* note 296.

³¹⁴ *See* 17 CFR 270.2a-7(d)(4).

³¹⁵ *See* HSBC Comment Letter.

effective than funds attempting to increase liquidity once a market stress event has occurred.³¹⁶ Moreover, although the rule includes the general obligation to hold sufficient liquidity to meet reasonably foreseeable redemptions and commitments, since 2010 the rule has also included a more prescriptive requirement to hold certain minimum liquidity levels. For the reasons discussed in this section, maintaining this general obligation while also increasing the specific minimum daily liquid assets requirement to 25% of total assets and weekly liquid assets requirement to 50% of total assets will provide a more substantial buffer that will make money market funds more resilient during times of market stress while maintaining funds' flexibility to invest in diverse assets during normal market conditions.

We are adopting, as proposed, minimum liquidity requirements of 25% daily liquid assets and 50% weekly liquid assets, rather than any higher threshold. While these liquidity levels do not reduce a fund's liquidity risk to zero, we believe that these thresholds would be sufficiently high to allow most money market funds to manage their liquidity risk in a market crisis. Moreover, the increase in funds' required daily and weekly liquid assets is not the only tool money market funds have to address redemptions under the final rule amendments. The amended rule includes a liquidity fee framework that is designed to mitigate the effect of large scale redemptions on remaining investors in the fund.

2. Consequences for Falling Below Minimum Daily and Weekly Liquidity Requirements

Currently, rule 2a-7 requires that a money market fund comply with the daily liquid asset and weekly liquid asset standards at the time each security is acquired.³¹⁷ A money market fund's portfolio that does not meet the minimum liquidity standards has not failed to satisfy the daily liquid asset and weekly liquid asset conditions of rule 2a-7; the fund simply may not acquire any assets other than daily liquid assets or weekly liquid assets, respectively, until it meets these

³¹⁶ See Fidelity Comment Letter.

³¹⁷ See 17 CFR 270.2a-7(d)(4)(ii) and (iii).

minimum thresholds. As proposed, we will continue to maintain this approach with respect to the increased minimum liquidity thresholds that we are adopting.

Commenters generally supported maintaining the requirement that a money market fund comply with the minimum liquidity requirements at the time each security is acquired.³¹⁸ These commenters expressed that a potential regulatory penalty for falling below the liquidity minimum, such as mandating that funds over-correct to a higher liquidity level, could convert what should otherwise be useable liquidity to a de facto floor, with fund managers operating to avoid the potential penalty. They also asserted that a minimum liquidity maintenance requirement (*i.e.*, requiring that funds maintain the minimum liquidity at all times) would necessitate that funds hold an additional buffer in excess of the required liquidity levels at all times and could similarly disincentivize fund managers from using available liquidity in times of need.

We agree with concerns from commenters and continue to believe that imposing a new regulatory penalty when a fund drops below a minimum liquidity threshold, or requiring the fund to “overcorrect” in that case, could have the unintended effect of incentivizing some fund managers to sell less liquid assets into a declining market rather than use their daily and weekly liquid assets during market stress events out of fear of approaching or falling below the regulatory threshold.³¹⁹ Accordingly, compliance with the minimum liquidity requirements will continue to be determined at security acquisition. As proposed, the amendments to rule 2a-7 maintain the current approach and simply require that a fund that falls below 25% daily liquid assets or 50% weekly liquid assets may not acquire any assets other than daily liquid assets or weekly liquid assets, respectively, until it meets these minimum thresholds.³²⁰

³¹⁸ See, e.g., Fidelity Comment Letter; Federated Hermes Comment Letter I; CFA Comment Letter.

³¹⁹ *Id.*

³²⁰ See amended rule 2a-7(d)(4)(ii) and (iii).

As proposed, the amendments, however, will require a fund to notify its board of directors when the fund’s liquidity falls to less than half of the required levels, that is, when the fund has invested less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets (a “liquidity threshold event”).³²¹ A fund must notify the board within one business day of the liquidity threshold event and must provide the board with a brief description of the facts and circumstances that led to the liquidity threshold event within four business days after its occurrence.³²²

The Commission received a few comments on this aspect of the proposal. Commenters generally supported board reporting for increased oversight, monitoring, and transparency.³²³ Some of these commenters shared that many funds currently notify their board when their liquidity levels approach the regulatory minimum or some other specified threshold, suggesting that some form of the proposed board reporting requirement is already occurring in practice.³²⁴ A commenter articulated that a 50% shortfall in liquidity is a significant enough event that signals likely liquidity pressures that the board should be aware of so that it can exercise its oversight duties.³²⁵ Although several commenters expressed support for a requirement to notify the board following a liquidity threshold event, some commenters suggested that a liquidity threshold event should reflect a 50% decline from their preferred minimum liquidity levels (*e.g.*, 20% daily liquid assets and 40% weekly liquid assets).³²⁶ Conversely, one commenter expressed concern with the general concept of the requirement, stating that a fund should only be required to notify

³²¹ See amended rule 2a-7(f)(4)(i).

³²² See amended rule 2a-7(f)(4)(i) and (ii). Similar to these board notification requirements, we are adopting a requirement that funds file reports on Form N-CR upon a liquidity threshold event. See *infra* section II.F.1.a.

³²³ See, *e.g.*, ICI Comment Letter; SIFMA AMG Comment Letter; Dechert Comment Letter; JP Morgan Comment Letter.

³²⁴ See ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I. See also *infra* note 682 and accompanying discussion.

³²⁵ See Fidelity Comment Letter (stating that it does “not expect shortfalls of this magnitude to be a common occurrence and, thus, the reporting obligations should not impose an undue burden on funds or advisors”).

³²⁶ See ICI Comment Letter; JP Morgan Comment Letter; Fidelity Comment Letter.

its board during periods of extreme market volatility.³²⁷ This commenter believes that there should be no required liquidity threshold for board notification, but funds should instead notify their boards only upon an unexpected event resulting in a fund's liquidity level falling materially below required levels. In contrast, another commenter suggested that funds should notify their boards if a fund's liquidity drops 25% or more below a regulatory minimum.³²⁸

Triggering a liquidity threshold event reflects that a fund's liquidity has decreased by more than 50% below at least one of the minimum daily and weekly liquid asset requirements. We agree with commenters suggesting that this is a significant event that likely signals liquidity pressure of which a fund's board should be aware. This provision is designed to facilitate appropriate board notification, monitoring, and engagement when such an event occurs, and will build on the practices some money market funds have today to inform fund boards about declines in liquidity, as explained by commenters. Further, we disagree with the commenter that suggested the rule should not include a specified level for a liquidity threshold event. A uniform approach that requires board notification at a 50% decline of the minimum daily or weekly liquidity levels is a simple and unambiguous metric that does not require subjective assessment of future cash flow needs or market conditions. We believe this requirement will provide the board with timely information in a context that would better facilitate the board's understanding and monitoring of significant declines in the fund's liquidity levels. Moreover, we are not adopting a smaller threshold for triggering board notifications, such as a 25% decline of the minimum daily or weekly liquidity levels. We recognize that some funds currently may notify their boards about such declines in liquidity, or may do so in the future as a matter of practice, and the final rule would not prevent or discourage these notifications. However, for purposes of a regulatory requirement to notify the fund's board promptly within one business day of a decline, it is reasonable to limit the requirement to significant declines of more than 50% below a

³²⁷ See Federated Hermes Comment Letter I.

³²⁸ See CFA Comment Letter.

minimum to limit potential disincentives for a fund to use available liquidity to meet redemptions and to align with the public reporting requirement on Form N-CR. After considering the comments on the proposal, we are adopting the liquidity threshold event board notification requirement as proposed.

3. Amendments to Liquidity Metrics in Stress Testing

As proposed, we are adopting amendments to the liquidity metrics in the rule's stress testing requirements to reflect amendments to the liquidity fee framework and the increase of regulatory liquidity minimums.³²⁹ Each money market fund is currently required to engage in periodic stress testing under rule 2a-7 and report the results of such testing to its board.³³⁰ Currently, one aspect of periodic stress testing involves the fund's ability to have invested at least 10% of its total net assets in weekly liquid assets under specified hypothetical events described in rule 2a-7. The Commission chose the 10% threshold because dropping below this threshold triggered a default liquidity fee, absent board action, and thus, had consequences for a fund and its shareholders.³³¹ The amendments that we are adopting no longer provide for default liquidity fees if a fund has weekly liquid assets below 10%. Further, we are increasing the weekly liquid asset minimum from 30% to 50%. Accordingly, we no longer believe that the rule should require funds to test their ability to maintain 10% weekly liquid assets under the specified hypothetical events described in rule 2a-7. Instead, we will require funds to test whether they are able to maintain sufficient minimum liquidity under such specified hypothetical events.³³² As a result, each fund will be required to determine the minimum level of liquidity it seeks to maintain during stress periods, identify that liquidity level in its written stress testing procedures,

³²⁹ See *supra* section II.B.

³³⁰ See 17 CFR 270.2a-7(g)(8).

³³¹ See 2014 Adopting Release, *supra* note 26, at section III.J.2.

³³² See amended rule 2a-7(g)(8)(i) and (g)(8)(ii)(A).

periodically test its ability to maintain such liquidity, and provide the fund’s board with a report on the results of the testing.

Of the commenters that discussed liquidity stress testing, nearly all supported the proposal’s removal of the 10% weekly liquid asset metric from the stress testing requirements.³³³ Commenters generally agreed that the proposed principles-based approach would improve the utility of the stress test results. In contrast, one commenter supported the existing liquidity stress testing framework asserting more generally that when faced with an actual stressed market environment the results of stress tests themselves are of little value to the fund and its board.³³⁴

After considering comments, and given the amendments to the liquidity fee framework and the minimum liquidity requirements that we are adopting, consistent with the proposal, it is appropriate to permit each fund to determine the level of liquidity that it considers sufficient for purpose of the rule’s stress testing requirements, instead of continuing to provide a bright-line threshold that all funds must use uniformly for internal stress testing. This approach is designed to improve the utility of stress test results because they will reflect whether the fund is able to maintain the level of liquidity it considers sufficient in stress periods, which may differ among funds for a variety of reasons (*e.g.*, type of money market fund or characteristics of investors, such as investor concentration or composition that may contribute to large redemptions).

Separately, one commenter urged the Commission to further strengthen the stress testing requirements by, among other things, disclosing results to investors.³³⁵ We are not requiring funds to disclose stress testing results publicly as part of this rulemaking. Stress testing is an

³³³ See ICI Comment Letter; SIFMA AMG Comment Letter; T. Rowe Comment Letter; Schwab Comment Letter.

³³⁴ See Comment Letter of Federated Hermes Inc. (Nov. 1, 2022) (“Federated Hermes Comment Letter IV”). Separately, one commenter expressed concern if the fund’s board, as opposed to its adviser, were required to determine the liquidity level used in the stress tests. See T. Rowe Comment Letter. The rule does not require the board specifically to make this determination, however, and also provides the ability for the board to delegate the responsibility to make most determinations under the rule to the fund’s adviser. See 17 CFR 270.2a-7(j); amended rule 2a-7(j).

³³⁵ See Systemic Risk Council Comment Letter (stating that “the market lacks the tools to determine whether the tests are appropriately calibrated, reducing the usefulness of the exercise with no apparent benefit”).

important tool to evaluate different drivers of liquidity risks, and is designed to enhance the manager's and the board's understanding of the risks to the fund portfolio under extreme and plausible market conditions. Public dissemination of stress test results may not provide much utility to the public considering that stress testing is not standardized from fund to fund and the results could be prone to misinterpretation from the public, given the hypothetical nature of the exercise.³³⁶

D. Amendments Related to Potential Negative Interest Rates

If negative interest rates occur in the future, the gross yield of a money market fund's portfolio may turn negative. Under those circumstances, it would be challenging or impossible for a government or retail money market fund (or "stable NAV fund") to maintain its stable share price under the current rule, as the fund would begin to lose money.³³⁷

Rule 2a-7, in its current form, does not explicitly address how money market funds must operate when interest rates are negative. However, rule 2a-7 states that government and retail money market funds may seek to maintain a stable share price by using amortized cost and/or penny rounding accounting methods. A fund may only take this approach so long as the fund's board of directors believes that the stable share price fairly reflects the fund's market based net asset value per share.³³⁸ Accordingly, the proposal stated that if negative interest rates turn a stable NAV fund's gross yield negative, a board may reasonably believe the stable share price does not fairly reflect the market based price per share and the fund would need to convert to a floating share price under these circumstances as a result. The proposed rule also would have prohibited a money market fund from reducing the number of its shares outstanding to seek to

³³⁶ See Federated Hermes Comment Letter IV.

³³⁷ See Proposing Release, *supra* note 6, at section II.D (discussing the relevant provisions of the current rule).

³³⁸ See 17 CFR 270.2a-7(c)(1)(i); *see also* 17 CFR 270.2a-7(g)(1) (requiring the fund's board to consider what, if any, action to take if the deviation between the fund's stable share price and the market-based value of its portfolio exceeds ½ of 1% and separately imposing a duty on the fund's board to consider appropriate action whenever the board believes the extent of any deviation may result in material dilution or other unfair results to investors or current shareholders).

maintain a stable NAV per share or stable price per share (the “proposed RDM prohibition”). As explained in the Proposing Release, the Commission believed that an approach involving a fund reducing the number of its shares to maintain a stable NAV (referred to as “share cancellation,” “reverse distribution mechanism,” or “RDM”) would not be intuitive for retail investors and may cause these investors to assume that their investment in a fund with a stable share price is holding its value while, in fact, the investment is losing value over time.³³⁹ The Commission requested comment on the RDM mechanism and the proposed RDM prohibition.

After considering comments, we continue to believe that a scenario in which a fund has negative gross yield as a result of negative interest rates could lead a fund to convert to a floating share price, as the current rule already permits. However, in a change from the proposal, the final rule will also permit a stable NAV fund to reduce the number of its shares outstanding to maintain a stable NAV per share in the event of negative interest rates, subject to certain board determinations and disclosures to investors.³⁴⁰ Accordingly, under the final rule, a stable NAV fund will be permitted to either convert to a floating NAV or to engage in share cancellation in this scenario. If a stable NAV fund converts to a floating NAV under these circumstances, the fund’s losses will be reflected through a declining share price. If a fund uses a share cancellation mechanism, the fund will maintain a stable share price, despite losing value, by reducing the number of its outstanding shares. Investors in such a fund would observe a stable share price but a declining number of shares for their investment.³⁴¹

With respect to the proposed RDM prohibition, commenters generally recommended that an RDM should be an available option for stable NAV funds to use, in addition to the conversion

³³⁹ See Proposing Release, *supra* note 6, at section II.D (discussing potential investor confusion as the Commission’s rationale for the proposed RDM prohibition).

³⁴⁰ Compare amended rule 2a-7(c)(3) (permitting share cancellation under certain conditions) with proposed rule 2a-7(c)(3) (prohibiting share cancellation).

³⁴¹ See Proposing Release, *supra* note 6, at section II.D (discussing how use of an RDM helps a fund maintain a stable NAV and its potential effects on the fund’s investors).

to a floating NAV.³⁴² Some commenters stated that many investors prefer a stable NAV investment.³⁴³ Commenters stated that, for example, investors may rely on the ability of stable NAV funds to process cash balances through cash sweep programs offered by many brokers, banks, and fund sponsors, and such sweep programs typically cannot accommodate floating NAVs.³⁴⁴ One commenter also observed that brokers and fund sponsors typically offer investors a range of bank-like features and services, such as ATM access, check writing, and ACH and Fedwire transfers that generally are only provided through stable NAV fund systems.³⁴⁵ In response to concerns expressed in the Proposing Release about the possibility that RDM may confuse investors, particularly retail investors, some commenters stated that RDM and floating NAV are economically equivalent options that can be explained to investors in clear disclosures.³⁴⁶ A few commenters provided sample disclosure to show how funds could explain RDM to investors.³⁴⁷ One of these commenters suggested disclosure to investors in advance of a fund's use of RDM, as well as ongoing disclosure in account statements when RDM is in use.³⁴⁸

³⁴² See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Allspring Funds Comment Letter; Fidelity Comment Letter; BNY Mellon Comment Letter; State Street Comment Letter; Sen. Toomey Comment Letter; Americans for Tax Reform Comment Letter; Dechert Comment Letter; CCMR Comment Letter; IDC Comment Letter. One commenter suggested that the Commission could permit a stable NAV money market fund to use a de-accumulating share class as an alternative approach, where negative income would result in a reduction in capital at the share class level and a fluctuating NAV per share. See BlackRock Comment Letter. We are not adopting provisions that would allow de-accumulating share classes at this time. We understand that such an approach would raise similar issues as a floating NAV for sweep programs and others and would raise tax considerations as well.

³⁴³ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Allspring Funds Comment Letter; ABA Comment Letter I.

³⁴⁴ See, e.g., Federated Hermes Comment Letter I; Fidelity Comment Letter; ABA Comment Letter I; ICI Comment Letter; SIFMA AMG Comment Letter; Morgan Stanley Comment Letter; BNY Mellon Comment Letter.

³⁴⁵ See ICI Comment Letter.

³⁴⁶ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Allspring Funds Comment Letter; Fidelity Comment Letter; BNY Mellon Comment Letter; State Street Comment Letter; Sen. Toomey Comment Letter; Americans for Tax Reform Comment Letter; Dechert Comment Letter; CCMR Comment Letter; IDC Comment Letter.

³⁴⁷ See Comment Letter of Federated Hermes (Aug. 30, 2022) ("Federated Hermes Comment Letter III"); SIFMA AMG Comment Letter.

³⁴⁸ Federated Hermes Comment Letter III (providing examples of disclosure documents including an initial notice upon a board's adoption of new prospectus disclosure on the potential use of RDM with a hypothetical side-by-side example to illustrate how a negative interest rate accrual would be reflected in an investor's account statement using both an RDM and a floating NAV; ongoing prospectus disclosure; a

Another commenter suggested a hybrid approach, where a fund could determine to offer an RDM to institutional investors or a floating NAV to retail investors.³⁴⁹ Another commenter suggested that transitioning to a floating NAV could be more complex and confusing for investors than an RDM.³⁵⁰ Commenters opposing the proposed RDM prohibition also generally suggested there is a remote likelihood of negative interest rates ever occurring in the U.S., and stated that there would be significant operational burdens and costs on investors and government and retail money market funds to prepare to convert from a stable NAV to a floating NAV.³⁵¹ Some commenters encouraged the Commission to continue a dialogue with the industry and study appropriate responses to negative interest rates, rather than adopt amendments to prohibit the use of RDM to address negative rates in this rulemaking.³⁵²

Other commenters supported the proposed RDM prohibition.³⁵³ Two commenters suggested that share cancellation may be potentially confusing or misleading to investors, particularly retail investors, because it presents less transparency about the loss of value in a shareholder's aggregate investment.³⁵⁴ One commenter stated that a floating NAV provides greater transparency to investors by showing daily fluctuations in the money market fund's NAV, thus enabling investors to monitor the value of their investment. This commenter also stated that the Commission's proposed approach would allow for international consistency among money market funds, as European money market fund regulations do not permit use of RDM.³⁵⁵ Another commenter agreed with the goal of the proposed approach but encouraged the

draft website notice; and a mock account statement showing the RDM as a negative dividend adjustment and directing the investor to the fund's prospectus for additional information).

³⁴⁹ See ABA Comment Letter I. The commenter's suggested hybrid approach would raise several financial reporting concerns and issues under rule 18f-3, which are beyond the scope of this rulemaking.

³⁵⁰ See BNY Mellon Comment Letter.

³⁵¹ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter.

³⁵² See, e.g., SIFMA AMG Comment Letter; Fidelity Comment Letter; State Street Comment Letter.

³⁵³ See Northern Trust Comment Letter; Vanguard Comment Letter; CFA Comment Letter.

³⁵⁴ See Northern Trust Comment Letter; CFA Comment Letter.

³⁵⁵ See Northern Trust Comment Letter.

Commission to consider a longer implementation timeframe in the current rate environment to better balance the costs and benefits of the proposed approach.³⁵⁶ One commenter encouraged the Commission to allow converted floating NAV funds to re-transition into stable NAV funds when yields become positive again.³⁵⁷

After considering the comments, we continue to believe it is valuable to address how government and retail money market funds should handle a negative interest rate scenario, as this is a question the industry has encountered multiple times over the years.³⁵⁸ However, we are persuaded by commenters that the concern that investors may find share cancellation misleading or confusing can be addressed by establishing conditions for a fund's use of share cancellation, including required disclosures. We also recognize that some investors may prefer for a fund to maintain a stable NAV and that a share cancellation approach may be less disruptive or costly than converting to a floating NAV in some cases. As a result, should a negative interest rate scenario ever occur in future periods and cause a stable NAV fund to have negative gross yield, a stable NAV fund will have the flexibility under the final rule to use a floating NAV, as already permitted, or to use an RDM if the board determines that cancelling shares is in the best interests of the fund and its shareholders and the fund provides appropriate disclosure to mitigate the possibility of investor confusion.

Specifically, the final rule will permit a stable NAV fund to use an RDM only if the fund has negative gross yield as a result of negative interest rates (a "negative interest rate event").³⁵⁹ Moreover, even in a negative interest rate event, the fund may use a share cancellation mechanism only if the fund's board of directors determines that reducing the number of the

³⁵⁶ See Vanguard Comment Letter.

³⁵⁷ See CFA Comment Letter.

³⁵⁸ See Proposing Release, *supra* note 6, at paragraphs accompanying nn.234 and 240.

³⁵⁹ See amended rule 2a-7(c)(3).

fund's shares outstanding is in the best interests of the fund and its shareholders.³⁶⁰ Among other things, in determining whether cancelling shares to maintain a stable NAV is in the best interests of the fund and its shareholders, the board generally should consider the following:

- The capabilities of the fund's service providers and intermediaries to support the equitable application of RDM across the fund's shareholders, including considerations of whether the operational and recordkeeping systems of the service providers and intermediaries are able to process and apply a pro rata reduction of shares in shareholder accounts on a daily basis.
- Any state law limitations on share cancellation.

In determining the best interests of the fund and its shareholders, the board will also need to devote particular attention to questions concerning the applicable tax rules. Absent the use of a share cancellation mechanism, we understand that for Federal income tax purposes all fund distributions to shareholders with respect to the shares of a normally operating stable-NAV money market fund are treated as dividends, and shareholders' tax basis in each share is always \$1. As a result of that constant basis, no gain or loss is recognized on redemption of the shares. On the other hand, if fund shares are cancelled pursuant to RDM, there can be no certainty that this tax treatment of distributions and shareholder basis would be unchanged. For example, share cancellation may result in shareholder basis that is more than \$1 per share, and/or the treatment of shareholder distributions in part not as dividends but as a return of basis that may reduce basis per share. Either deviation from constant basis may require tax reporting by shareholders, funds, and fund intermediaries that are different from those expected for stable-NAV funds. There is no certainty either that the Treasury Department and the IRS will issue guidance to remove any tax challenges to the use of RDM share cancellation or that Congress will enact legislation to do so.

³⁶⁰ The "best interests of the fund and its shareholders" in this context is not intended to apply to each money market fund shareholder individually, but rather to the fund's shareholders generally.

Accordingly, in determining whether cancelling shares to maintain a stable NAV is in the best interests of the fund and its shareholders, the board generally should also consider the following, taking into account the possibility that no new tax guidance or legislation may be forthcoming:

- The tax implications of share cancellation for the fund itself. Those implications for the fund's tax accounting concern not only any tax liability of the fund but also the tax attributes of the fund's distributions to its shareholders. It is particularly important to consider distributions in the latter part of a year whose earlier portion had contained losses and share cancellations.
- The tax implications of share cancellation for a fund's shareholders, including:
 - Whether investors will understand the effects that RDM share cancellation may have on their tax obligations, and whether they will be able to comply with any novelty and complexity in those obligations.
 - Whether the fund and its intermediaries will be able to administer shareholder tax reporting and related matters.
 - Whether the fund's use of RDM share cancellation would cause shareholders to experience any adverse tax consequences that they would not experience if the fund used a floating NAV instead, and, if so, whether these consequences are justified by the presence of benefits to shareholders from RDM share cancellation.
 - The tax characterization of the cancellation, and whether the cancellations directly produce losses for shareholders or, instead, there is a change in the bases of the shareholders' remaining shares, affecting the amount of subsequent loss or gain with respect to those shares.

- If the cancellation directly produces a loss, when the shareholders recognize that loss, and what responsibility the fund and its intermediaries have for related reporting to the shareholders.

The board also generally should review its determination that RDM share cancellation is in the best interests of the fund and its shareholders if circumstances change, including if a negative interest rate event appears to be reasonably likely to occur in the near future. Finally, the board may not delegate to the fund's investment adviser or officers the responsibility to make such determination.³⁶¹ A fund's board, and not its adviser, is in the best position to determine if share cancellation is in the best interests of the fund and its shareholders and, thus, is the appropriate entity to determine whether a fund will use share cancellation within the parameters of the rule.

The fund must provide timely, concise, and plain-English disclosure about the fund's share cancellation practices and their effects on investors to investors both before and during a negative interest rate event. Such disclosures must include (i) advance notification to investors in the fund's prospectus that the fund plans to use share cancellation in a negative interest rate event and the potential effects on investors, and (ii) when the fund is cancelling shares, information in each account statement or in a separate writing accompanying each account statement identifying that such practice is in use and explaining its effects on investors.³⁶² When disclosing the effects of share cancellation on investors, the fund should include a clear and prominent statement that an investor is losing money when the fund cancels the investor's shares. The fund generally should also clearly and concisely describe tax effects for shareholders.

With respect to prospectus disclosure, this disclosure must be provided before a fund begins to use share cancellation and generally should be provided with sufficient advance notice to allow an investor to take into account information about the fund's possible use of share

³⁶¹ See amended rule 2a-7(j).

³⁶² See amended rule 2a-7(c)(3)(iv).

cancellation and the effects of that approach in the investor's investment decisions. If the board's determination allowing the fund to use share cancellation occurs during a time when a negative interest rate environment does not appear to be reasonably likely to occur in the near future, the fund may include the required disclosures in any relevant part of the fund's prospectus.

However, if a negative interest rate environment appears to be reasonably likely to occur in the near future, the fund must include disclosures about its possible use of share cancellation and the effects of share cancellation on investors in the summary prospectus, as share cancellation would be a component of the fund's principal investment strategies or principal risks when a fund is reasonably likely to use share cancellation in the near future.³⁶³ If a fund modifies its summary prospectus to disclose the reasonable likelihood of cancelling shares, or to disclose that the fund has begun to use share cancellation, then the fund also will be required under Item 27A of Form N-1A to report information about this change as a material change in its next annual shareholder report.³⁶⁴ In addition to providing advance notice in fund prospectuses, funds generally should consider investor education efforts to help investors understand share cancellation and the effects of negative interest rates, as investors may not have ever experienced a negative interest rate event. For example, if negative interest rates are expected to occur in the near term, money market funds should consider additional communications and outreach to educate investors about negative interest rates and their effects on money market fund investments, including the tax effects of RDM share cancellation and tax reporting.

³⁶³ See Item 4 of Form N-1A. Depending on when a fund believes that negative rates may be reasonably likely to occur relative to the fund's annual prospectus update, a fund may "sticker" its summary prospectus to provide this information. See 17 CFR 230.497.

³⁶⁴ See Tailored Shareholder Reports for Mutual Funds and Exchange-Traded Funds; Fee Information in Investment Company Advertisements, Investment Company Act Release No. 34731 (Oct. 26, 2022) [87 FR 72758 (Nov. 25, 2022)], at section II.A.2.f ("Tailored Shareholder Reports Adopting Release"); Item 27A(g) of Form N-1A, as amended by the Tailored Shareholder Reports Adopting Release. The compliance date for the tailored shareholder report requirements ends 18 months after the effective date of Jan. 24, 2023. Until the end of that compliance period, funds will not be required to report material changes in their annual shareholder reports.

When a fund is using share cancellation, the final rule requires disclosure in the account statement or a separate writing accompanying the account statement, because we believe the account statement is where the shareholder will see the direct effects of share cancellation on the shareholder's investment. Specifically, if a fund implements share cancellation, the account statement would show the reduction in the number of shares the investor holds and the investor's reduced account balance. Funds generally will need to work with their distribution networks to make sure that share cancellation is disclosed clearly and explained in plain English in the account statement or a separate writing accompanying the account statement. This may include, for example, showing the share cancellation as a separate transaction and explaining that the shareholder is losing money on its money market fund investment because of negative interest rates.

Using share cancellation also will have an effect on the fund's financial disclosures. For example, a fund's statements of changes in net assets must include information about the total distributions to shareholders coming from different sources.³⁶⁵ Under the requirements for disclosing the total distributions to shareholders in 17 CFR 210.6-09, negative distributions attributable to RDM would be "other sources" of distributions. Funds generally should disclose negative distributions attributable to RDM separately from any other sources of distributions to shareholders in the statement of changes in net assets. Separate disclosure of negative distributions in the statement will help investors understand the effect of share cancellation. Separately, as discussed below, the final amendments will require stable NAV funds to report on Form N-MFP when they use share cancellation.³⁶⁶

If a fund begins to use share cancellation, it also should consider effects on other information it provides and evaluate whether that information continues to present an accurate picture of the fund. For example, when calculating and providing the fund's market-based NAV

³⁶⁵ See 17 CFR 210.6-09 (rule 6-09 of Regulation S-X).

³⁶⁶ See *infra* section II.F.2.a.

per share, the fund generally should use the number of shares outstanding it would have but for its use of share cancellation. We generally do not believe that it would be appropriate to use the actual number of shares outstanding the fund has under these circumstances because share cancellation would have the effect of inflating the fund's market-based NAV per share. That is, assuming two funds have the same portfolios with the same market-based value, if one fund used share cancellation and the other fund used a floating NAV, the fund using share cancellation would appear to have a higher market-based NAV per share because it would divide the market-based value across a smaller number of shares than the fund using a floating NAV.

Taken together, these disclosures are intended to help the shareholder understand how the value of its investment is declining and to facilitate Commission monitoring of how stable NAV money market funds address negative interest rates. On balance, we believe investors would benefit from the ability to continue to invest in stable NAV funds during a negative interest rate environment, and that effective disclosure prior to and during the use of an RDM will help investors understand why and how their investment is losing value.

While this discussion focuses on investor disclosures related to share cancellation, a stable NAV fund that plans to convert to a floating NAV if it has negative gross yield due to negative interest rates generally should consider similar prospectus, shareholder report, and account statement disclosures, as applicable, given investors' lack of experience with negative interest rates and potential expectation that the fund will continue to maintain a stable NAV.

In addition to the proposed RDM prohibition, the Commission proposed to require stable NAV funds to determine that each financial intermediary in the fund's distribution network has the capacity to redeem and sell the fund's shares at non-stable prices or, if this determination cannot be made, to prohibit the relevant intermediary from purchasing the fund's shares in nominee name.³⁶⁷ After considering comments, and given that we are permitting a stable NAV

³⁶⁷ See proposed rule 2a-7(h)(11)(ii). A stable NAV fund also would have been required to maintain records identifying the intermediaries the fund determined had the capacity to transact at non-stable prices and the

fund to use RDM under specified conditions in the final rule, we are not adopting this aspect of the proposal. However, we are providing the guidance below to address how funds and financial intermediaries generally should prepare for the possibility of a stable NAV fund's conversion to a floating NAV fund.

Several commenters expressed concerns with the potential burdens and costs of implementing the proposed requirement for government and retail money market funds to determine each financial intermediary's capacity to redeem and sell securities issued by a fund at a floating NAV per share or prohibit the financial intermediary from purchasing the fund's shares in nominee name.³⁶⁸ Some of these commenters stated that this proposed requirement would be especially burdensome for financial intermediary platforms that operate cash sweep programs and bank-like services under a "dollar in, dollar out" infrastructure that does not accommodate a floating share price.³⁶⁹ These commenters stated that such platforms may be unwilling to bear such burdens and costs and thus may no longer offer government and retail money market funds to their customers, with potentially adverse effects on the economy. Several commenters also suggested that imposing this requirement on government and retail money market funds is misplaced, given that such funds did not experience the same large redemption pressures in March 2020 as public institutional prime and institutional tax-exempt funds.³⁷⁰ Some commenters stated that the proposed determination or certification requirement is not an appropriate role for fund providers.³⁷¹ One commenter who agreed with the need for the proposed determination requirement suggested an alternative approach in which the Commission would act as a repository for such determinations so that individual firms would not have to

intermediaries for which the fund was unable to make this determination. *See* proposed rule 2a-7(h)(11)(iii).

³⁶⁸ *See, e.g.*, ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I.

³⁶⁹ *See, e.g.*, ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Morgan Stanley Comment Letter; BNY Mellon Comment Letter.

³⁷⁰ *See, e.g.*, ICI Comment Letter; Morgan Stanley Comment Letter.

³⁷¹ *See, e.g.*, BlackRock Comment Letter; IIF Comment Letter.

conduct their own due diligence.³⁷² Another commenter recommended that the Commission modify this aspect of the proposal to require that financial intermediaries have a reasonably adequate plan or playbook in place for how they would respond to a negative interest rate environment should one arise.³⁷³

Although the final rule will not require funds to make determinations related to intermediaries' capabilities of transacting at non-stable prices, intermediaries themselves may be subject to separate obligations to investors with regard to the distribution of proceeds received in connection with investments made or assets held on behalf of investors.³⁷⁴ We also believe that stable NAV money market funds generally should engage with their distribution network in considering how they would handle a negative interest rate environment, as intermediaries' abilities to move to a four-digit NAV and apply a floating NAV or to process share cancellations is an important consideration in determining an approach that is in the best interests of the fund and its shareholders.

More generally, it is important for a stable NAV money market fund to understand the capabilities of its distribution network in the event the fund breaks the buck. To the extent these funds have not already done so, they generally should have a proactive plan or playbook in place for such an event that takes into account how different intermediaries in the fund's distribution network would address a fund's use of a floating NAV (*e.g.*, whether the intermediary has an automated process for processing transactions at a floating NAV or would need to manually process such transactions, as well as the likelihood that an intermediary using a manual approach would move investors to an alternative investment to mitigate the burdens of its manual process).

³⁷² See CFA Comment Letter.

³⁷³ See Fidelity Comment Letter.

³⁷⁴ Cf. 17 CFR 240.15c3-3 (requiring, among other things, that broker-dealers take certain steps to protect cash they hold for customers). See also *Gilman v. Merrill Lynch, Pierce, Fenner & Smith, Inc.* 404 N.Y.S.2d 258, 262 (N.Y. Sup. Ct. 1978) (holding that after an investment is sold and proceeds belonging to the customer come into the broker's possession, the broker becomes a fiduciary with respect to those proceeds and may not consciously use them to the detriment of the customer and for the broker's own benefit).

Consistent with the goals of the Commission’s proposed amendments, this information would help a fund better prepare for a conversion to a floating NAV and better understand the extent to which some intermediaries may quickly move investors’ money out of the fund, which has implications for the fund’s redemption risks and liquidity management.³⁷⁵

E. Amendments to Specify the Calculation of Weighted Average Maturity and Weighted Average Life

We are adopting amendments as proposed to rule 2a-7 to specify the calculations of “dollar-weighted average portfolio maturity” (“WAM”) and “dollar-weighted average life maturity” (“WAL”).³⁷⁶ WAM and WAL are calculations of the average maturities of all securities in a portfolio, weighted by each security’s percentage of net assets. These calculations are an important determinant of risk in a portfolio, as a longer WAM and WAL may increase a fund’s exposure to interest rate risks. As discussed in the Proposing Release, funds have used different approaches when calculating WAM and WAL under the current definitions in rule 2a-7.³⁷⁷ We understand that a majority of money market funds calculate WAM and WAL based on the percentage of each security’s market value in the portfolio, while other money market funds base calculations on the amortized cost of each portfolio security. This discrepancy can create inconsistency of WAM and WAL calculations across funds, including in data reported to the Commission and provided on fund websites.³⁷⁸ Under the amended definitions of WAM and WAL, funds will be required to calculate WAM and WAL based on the percentage of each security’s market value in the portfolio.³⁷⁹

³⁷⁵ See Proposing Release, *supra* note 6, at section II.D.

³⁷⁶ See amended rule 2a-7(d)(1)(ii) and (iii).

³⁷⁷ See Proposing Release, *supra* note 6, at section II.E.

³⁷⁸ See Items A.11 and A.12 of current Form N-MFP; 17 CFR 270.2a-7(h)(10)(i)(A).

³⁷⁹ See amended rule 2a-7(d)(1)(ii) and (iii).

Commenters were generally supportive of the proposal.³⁸⁰ However, one commenter disagreed with the proposal, suggesting that the small difference between the WAM and WAL calculated with amortized cost versus market value would not meaningfully impact a fund's WAM and WAL and therefore did not justify the operational burdens for a fund not currently using market values for these calculations.³⁸¹ While the difference between a fund's WAM or WAL calculated using amortized cost versus market value is likely to be small in many circumstances, there are also circumstances where this difference may be more significant, such as when a security's issuer experiences a credit event, during periods of market stress, or when interest rates rise rapidly, particularly for assets with longer maturities. Further, these amendments are intended to enhance the consistency of calculations for funds, while allowing the Commission to better monitor and respond to indicators of potential risk and stress in the market. While we recognize that some money market funds may need to implement certain operational changes to comply with the new calculations, a majority of money market funds already calculate WAM and WAL based on the percentage of each security's market value in the portfolio, and all types of money market funds determine the market values of their portfolio holdings for other purposes, which should help limit the extent of operational changes needed. After considering the comments received on the proposal, we are adopting the amendments to the definitions of WAM and WAL as proposed.

F. Amendments to Reporting Requirements

1. Amendments to Form N-CR

We are adopting the amendments to Form N-CR as proposed. In particular, the final amendments add a new requirement for a money market fund to report publicly if it experiences a liquidity threshold event (*i.e.*, the fund has invested less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets) because such an event

³⁸⁰ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Capital Group Comment Letter.

³⁸¹ See Federated Hermes Comment Letter I.

represents a significant drop in liquidity of which investors should be aware.³⁸² We are also adopting all other proposed amendments to Form N-CR, including the structured data requirement, to improve the availability, clarity, and utility of information about money market funds.

a. Reporting of Liquidity Threshold Events

Under the proposal, money market funds would be required to report publicly on Form N-CR when their daily or weekly liquid assets declined by more than 50% below the regulatory minimums. We are adopting this requirement as proposed. Under the final amendments, a fund experiencing a liquidity threshold event is required to report: (1) the initial date on which the fund fell below either the 25% weekly liquid assets or the 12.5% daily liquid assets threshold; (2) the percentage of the fund's total assets invested in both weekly liquid assets and daily liquid assets on the initial date of a liquidity threshold event; and (3) a brief description of the facts and circumstances leading to the liquidity threshold event. A fund will be required to report the amount of both its weekly liquid assets and its daily liquid assets, regardless of whether it has dropped below one or both thresholds, to provide insight into the fund's short-term and immediate liquidity profile. The brief description of facts and circumstances is intended to help better inform investors, the Commission, and our staff of events that lead to significant declines in liquidity.

Commenters had mixed views about whether the reporting of these liquidity threshold events should be made public or filed confidentially with the Commission. Some commenters supported the proposed public reporting requirement.³⁸³ These commenters emphasized the benefits of increased transparency for investors and the Commission. One commenter suggested such public reporting would help inform investors who do not regularly monitor fund liquidity

³⁸² See Part E of amended Form N-CR.

³⁸³ See CFA Comment Letter; Western Asset Comment Letter; Better Markets Comment Letter.

levels on fund websites to understand what is happening with their fund.³⁸⁴ Another commenter stated that, while there is a possibility investors will redeem in response to a reported liquidity threshold event, the proposed amendments may reduce the likelihood of such redemptions because this report will provide information about why the liquidity decline occurred, thus reducing investor uncertainty.³⁸⁵

Commenters requesting confidential reporting to the Commission reasoned that money market funds are currently required to provide information about the size of their daily and weekly liquid assets on a daily basis on their public websites; thus, the commenters suggested the proposed reporting of a liquidity threshold event does not provide investors with information they do not otherwise have. These commenters also suggested that public reporting may heighten investor sensitivity to liquidity levels and affect redemption behavior.³⁸⁶ One of these commenters expressed concerns that the 12.5% daily liquid asset and 25% weekly liquid asset thresholds for reporting could become new bright lines that contribute to investor redemption behavior and incentivize money fund managers to maintain liquid asset levels above these thresholds, rather than use those assets to meet redemptions. This commenter also suggested that the requirement for a fund to report liquidity threshold events to its board reduces any investor protection or public interest benefits of public reporting.³⁸⁷

After considering comments, we continue to believe public reporting when a fund drops more than 50% below a regulatory liquidity minimum is important information for monitoring purposes. Such a significant decrease in liquidity merits prompt disclosure and explanation to investors, the Commission, and our staff. Required public reporting also is consistent with the

³⁸⁴ See CFA Comment Letter.

³⁸⁵ See Better Markets Comment Letter.

³⁸⁶ See, e.g., ICI Comment Letter, Federated Hermes Comment Letter I; Invesco Comment Letter; Schwab Comment Letter; SIFMA AMG Comment Letter; Bancorp Comment Letter.

³⁸⁷ See Dechert Comment Letter (drawing parallels to the Commission's determination not to require public reporting on Form N-PORT if a non-money market fund falls below its highly liquid investment minimum under rule 22e-4, because the Commission considered the presence of board oversight in that determination).

required public disclosure of daily liquidity levels on fund websites.³⁸⁸ While some commenters suggested a public report is unnecessary because investors already have access to daily liquidity levels on fund websites, these websites do not explain the facts and circumstances surrounding a liquidity threshold event. Investors benefit from having contextual information to understand the cause of the declining liquidity, which is helpful for assessing the fund's risks and its ability to meet redemptions. We also disagree that public reporting is unnecessary because funds must report liquidity threshold events to their boards under the final rule. Board reporting does not improve transparency for investors around the occurrence and causes of liquidity threshold events. Moreover, in response to some commenters' suggestion that such reporting might incentivize redemptions, we cannot predict individual shareholder actions with certainty, but if such redemptions were to occur, the final rule will provide information about why the liquidity decline occurred, thus reducing investor uncertainty. In addition, the final rule provides fund managers with liquidity fees as a tool for managing these redemptions. Further, while we appreciate the concern that such a reporting requirement might encourage money market fund managers to use assets other than daily or weekly liquid assets to meet redemptions to avoid a drop in liquidity that would trigger the reporting requirement, we do not believe such a requirement will contribute significantly to such an incentive because funds are already required to provide daily liquidity levels on their websites. As a result of these considerations, as proposed, the final amendments will require a fund to report the occurrence of a liquidity threshold event publicly on Form N-CR.

With respect to the type of liquidity threshold event a fund must report on Form N-CR, one commenter suggested requiring a fund to report only if it is 50% below each of the daily and weekly liquidity minimums for five consecutive days, but did not offer a supporting rationale.³⁸⁹ We continue to believe that dropping 50% below a minimum liquidity requirement is a

³⁸⁸ 17 CFR 270.2a-7(h)(10)(ii)(A) and (B).

³⁸⁹ *See* Federated Hermes Comment Letter I.

significant event that merits reporting on Form N-CR to help investors, the Commission, and its staff monitor significant declines in liquidity, even if the drop in liquidity is not a protracted event.³⁹⁰ Expanding the number of days a fund must be 50% below a regulatory liquidity minimum before it is required to report would reduce the intended transparency and utility of the reports on Form N-CR.

We are also adopting the same informational requirements as proposed for these reports. Commenters generally did not discuss the proposed informational requirements, except one commenter expressed support for the general approach.³⁹¹ This commenter expressed support for requiring a fund to report both its daily and weekly liquid asset levels when a liquidity threshold event occurs (even if only one threshold is crossed) and with requiring disclosure about the basis for the liquidity threshold event.

Consistent with current timing requirements and with the proposal, a fund will have to file a report within one business day after occurrence of a liquidity threshold event; however, a fund may file an amended report providing the required brief description of the facts and circumstances leading to the liquidity threshold event up to four business days after such event. Commenters did not suggest any changes to the proposed timeframe for filing reports on Form N-CR. If a fund has daily liquid assets or weekly liquid assets continuously below the relevant threshold for consecutive business days after reporting an initial liquidity threshold event, as proposed, the final amendments will only require the fund to report the initial date of the liquidity threshold event, and will not require additional Form N-CR reports to disclose that the same type of liquidity threshold event continues.³⁹² One commenter discussed this approach and agreed with it.³⁹³ Further, as proposed, an additional report will be required if, for example, a

³⁹⁰ See Proposing Release, *supra* note 6, at section II.F.1.a.

³⁹¹ See Federated Hermes Comment Letter I.

³⁹² See Items E.1 and E.2 of amended Form N-CR; *see also* Proposing Release, *supra* note 6, at section II.F.1.a.

³⁹³ See Federated Hermes Comment Letter I.

fund initially drops below 25% weekly liquid assets and then on a subsequent day drops below 12.5% daily liquid assets.³⁹⁴

b. Structured Data Requirement

As proposed, the final rule will require money market funds to file reports on Form N-CR in a custom eXtensible Markup Language (“XML”)-based structured data language created specifically for reports on Form N-CR (“N-CR-specific XML”).³⁹⁵ The few comments the Commission received on this topic were mixed.³⁹⁶ In support, one commenter regarded it as a reporting enhancement that would increase transparency for institutional and retail investors, and allow regulators and policymakers to better assess the state of the financial system.³⁹⁷ In opposition, one commenter suggested that structured data is more expensive and not used by investors.³⁹⁸

After considering commenters’ views, we are adopting the structured data requirement as proposed. While we acknowledge that Form N-CR filers may bear some additional reporting costs as a result of this amendment, as one commenter suggested, we believe these costs will generally be related to funds adjusting their systems to a different data language.³⁹⁹ We continue to believe that use of an N-CR-specific XML language may result in reduced reporting costs by introducing additional efficiencies for funds already accustomed to using structured data for

³⁹⁴ As discussed in the Proposing Release, if a fund initially falls below only one threshold and then subsequently falls below the other threshold, the final amendments will require a second Form N-CR report. For example, if a fund dropped below 25% weekly liquid assets on Tuesday and dropped below 12.5% daily liquid assets on Thursday, it would be required to file two separate reports to disclose each liquidity threshold event. Additionally, if a fund fell below either threshold and subsequently resolved the liquidity threshold event before an initial or amended report is filed, the fund would still be required to report the liquidity threshold event and the facts and circumstances leading to the liquidity threshold event. See Proposing Release, *supra* note 6, at n.261.

³⁹⁵ See General Instruction D of amended Form N-CR.

³⁹⁶ See Western Asset Comment Letter; Federated Hermes Comment Letter I.

³⁹⁷ See Western Asset Comment Letter.

³⁹⁸ See Federated Hermes Comment Letter I.

³⁹⁹ *Id.*

other required reports and may reduce overall reporting costs in the longer term.⁴⁰⁰ The structured data requirement will provide more useful data for investors and the Commission, as applicable, because it will allow tools to be developed for sorting and filtering the available data according to specified parameters to enhance comparative assessments and customized analyses.

c. Other Amendments

We also are adopting the following amendments to Form N-CR as proposed: (1) require the registrant name, series name, and legal entity identifiers (“LEIs”) for the registrant and the series to improve identifying information on the form;⁴⁰¹ (2) add definitions of LEI, registrant, and series to Form N-CR for clarity and consistency with the same defined terms on Form N-MFP;⁴⁰² (3) remove the reporting events that relate to liquidity fees and redemption gates, as money market funds will no longer be permitted to impose redemption gates under rule 2a-7, and other disclosure about the imposition of liquidity fees is more appropriate than Form N-CR disclosure under the final rule’s amended liquidity fee framework;⁴⁰³ and (4) amend Part C of Form N-CR, which relates to the provision of financial support to the fund.⁴⁰⁴ Specifically, when such support involves the purchase of a security from the fund, the final rule, as proposed, will require reporting of the date the fund acquired the security, which will allow better identification of, and context for, support that occurs within a short period of time. For example, if the fund purchased the security a few days before the affiliate acquired it, this could suggest that the risk profile of the security deteriorated rapidly. One commenter stated that we should not adopt these

⁴⁰⁰ As discussed in the Proposing Release, money market funds already have experience with a custom XML language with respect to their reports on Form N-MFP. In addition, we understand that when money market funds prepare reports in HTML or ASCII (as currently required for Form N-CR reports), they generally need to reformat required information from the way that information is stored for normal business purposes. *See* Proposing Release, *supra* note 6, at section II.F.1.b.

⁴⁰¹ *See* Items A.2, A.4, A.5, and A.7 of amended Form N-CR.

⁴⁰² *See* General Instruction F of amended Form N-CR.

⁴⁰³ *See* Parts E through G of current Form N-CR.

⁴⁰⁴ *See* Item C.6 of amended Form N-CR.

proposed reporting amendments but did not provide a rationale.⁴⁰⁵ Accordingly, we are adopting such amendments to realize their intended benefits.

2. Amendments to Form N-MFP

a. New Information Requirements

We are adopting, with the modifications discussed below, the reporting requirements regarding additional information about the composition and concentration of money market fund shareholders and about prime funds' sales of non-maturing investments. In addition, similar to the proposed requirement to report information about the use of swing pricing, we are requiring funds to report information about their application of liquidity fees under the final rule. Further, because the final rule will permit stable NAV funds to use share cancellation in a negative interest rate environment, we are requiring reporting related to share cancellation.

Shareholder Concentration

In a change from the proposal, after considering comments raising privacy and related concerns, we will not require money market funds to disclose the name of each person who is known by the fund to own beneficially or of record 5% or more of the shares outstanding in the relevant class.⁴⁰⁶ Rather, the final rule requires money market funds to report only the *type* of beneficial or record owner who owns 5% or more of the shares outstanding in the relevant class. Accordingly, amended Form N-MFP includes the following categories of owner types from which filers will make the appropriate selection: retail investor; non-financial corporation; pension plan; non-profit; state or municipal government entity (excluding governmental pension plans); registered investment company; private fund; depository institution or other banking

⁴⁰⁵ See Federated Hermes Comment Letter I.

⁴⁰⁶ See Item B.10 of amended Form N-MFP. If the fund knows that two or more beneficial owners of the class are affiliated with each other, the fund would treat them as a single beneficial owner when calculating the percentage ownership and identify separately each affiliated beneficial owner by type and the percentage interest of each affiliated beneficial owner. For these purposes, an affiliated beneficial owner would be one that directly or indirectly controls or is controlled by another beneficial owner or is under common control with another beneficial owner.

institution; sovereign wealth fund; broker-dealer; insurance company; and other.⁴⁰⁷ The shareholder concentration information the final amendments require will provide the Commission and investors with a greater ability to monitor redemption and liquidity risks.

As proposed, the final amendments require funds to use a 5% ownership threshold for the shareholder concentration reporting requirement. Commenters generally did not engage substantively on the proposed 5% ownership threshold, though one commenter did agree that 5% would be an appropriate threshold.⁴⁰⁸ Funds currently provide similar ownership information using a 5% threshold on an annual basis in their registration statements.⁴⁰⁹ More frequent reporting of information on Form N-MFP is designed to facilitate monitoring of a fund's potential risk of redemptions by an individual or a small group of investors that could significantly affect the fund's liquidity.

As proposed, to address circumstances in which multiple investors would be represented as a single shareholder of record as a result of omnibus accounts, the final amendments require funds to report beneficial owner information only to the extent that such beneficial ownership is known to the fund.⁴¹⁰ Commenters did not address this aspect of the proposal. We recognize that funds may not have information about the type of beneficial owner or amount each beneficial owner holds in an omnibus account. The reporting item distinguishes between the percent of shares outstanding owned of record and owned beneficially to facilitate a more nuanced understanding of potential concentration levels.

⁴⁰⁷ See Item B.10.b of amended Form N-MFP. This list of investor types is consistent with the types of investors identified in the proposed and final reporting item on shareholder composition of institutional prime and institutional tax-exempt funds, except the beneficial owner list includes retail investors because the requirement to report investor concentration is not limited to institutional money market funds.

⁴⁰⁸ See Federated Hermes Comment Letter I.

⁴⁰⁹ See Item 18 of Form N-1A.

⁴¹⁰ Omnibus accounts are accounts established by intermediaries that typically aggregate all customer activity and holdings in a money market fund, which can result in the fund not having information about individual beneficial owners who hold their shares through the omnibus account.

Some commenters objected to the proposal that funds must publicly disclose the names of specific investors on the basis that the information is private and confidential.⁴¹¹ For instance, one commenter suggested that disclosure of investor names would be anti-competitive and give other fund sponsors a window into shareholder composition of money market funds.⁴¹² Another commenter suggested such reporting may cause investors to adjust holdings as of month end to avoid public disclosure of their money market fund holdings and drive redemptions.⁴¹³ To address these concerns, some commenters suggested that the information should only be reported to the Commission on a confidential basis, particularly given the frequency of the reporting.⁴¹⁴

Some commenters suggested that shareholder concentration information is of little value and would be burdensome for money market funds to report on a monthly basis. For example, some commenters questioned the usefulness, both to the Commission and investors, of shareholder concentration information.⁴¹⁵ Other commenters questioned the value of requiring reporting of investor names relative to the burden on money market funds.⁴¹⁶ One commenter suggested that intermediary omnibus accounts and the use of nominee names may cause confusion and interpretive issues since interpretation of the data may be subjective and potentially inaccurate.⁴¹⁷ This commenter also suggested that investors lack sufficient

⁴¹¹ See, e.g., CFA Comment Letter; Federated Hermes Comment Letter I; Invesco Comment Letter; Dechert Comment Letter (expressing concern that investors, particularly natural persons, would be at risk of having their investments tracked or monitored throughout the year); Schwab Comment Letter; ICI Comment Letter; Bancorp Comment Letter; SIFMA AMG Comment Letter; Northern Trust Comment Letter; CCMR Comment Letter.

⁴¹² See Invesco Comment Letter.

⁴¹³ See Northern Trust Comment Letter.

⁴¹⁴ See, e.g., Federated Hermes Comment Letter I; Invesco Comment Letter; Dechert Comment Letter (stating that more frequent reporting raises privacy concerns, as contrasted with the 30-day lag for reporting similar information on Form N-1A); BlackRock Comment Letter; Schwab Comment Letter; ICI Comment Letter; Bancorp Comment Letter; Northern Trust Comment Letter.

⁴¹⁵ See Invesco Comment Letter (stating that it was unlikely that the requirement for money market funds to disclose shareholder concentration levels regularly would produce standardized cross industry data that could be used in a meaningful manner); ICI Comment Letter; SIFMA AMG Comment Letter; *see also* Western Asset Comment Letter.

⁴¹⁶ See BlackRock Comment Letter; *see also* CCMR Comment Letter (noting general compliance costs and the burden to funds); Western Asset Comment Letter.

⁴¹⁷ See Western Asset Comment Letter.

information to assess the risks of single shareholder positions. Another commenter suggested that disclosure of shareholders that own 5% or more of shares is not necessary because daily flow information is available on fund websites and provides investors with sufficient information to monitor redemption risk.⁴¹⁸

Upon consideration of the comments, the amended rule will not require funds to report the names of the greater than 5% owners. Although shareholder concentration information is already reported publicly by funds on an annual basis on Form N-1A, we recognize the sensitivities associated with publicly reporting the names of owners with ownership of more than 5% on a monthly basis. Accordingly, the amendments instead require funds to provide information about the types of owners who invest 5% or more in a class of the fund. This amendment addresses commenters' concerns while maintaining the value of the reported information in monitoring a fund's potential risk of redemptions by an individual or a small group of investors that could significantly affect the fund's liquidity. We decline to make shareholder concentration information confidential, as some commenters suggested, because confidential reporting would deprive investors of the increased ability to monitor redemption and liquidity risk. In addition, as proposed, the burden of the reporting requirement is limited because funds need only report beneficial ownership information to the extent known by the fund.

In response to comments questioning the value of shareholder concentration information, we believe that more frequent information about shareholder concentration will assist both the Commission and investors in monitoring a fund's potential risk of redemptions. In particular, investors can identify shareholder concentrations that may significantly affect the fund's liquidity. While we recognize investors have access to information about a fund's historical flows and liquidity levels, this information may not present the full picture of the risks of a single shareholder redeeming a large position in the fund's shares. Investors will benefit from

additional information that allows them to more efficiently monitor and assess liquidity risk. The shareholder concentration reporting requirement will provide an additional useful metric when undertaking liquidity risk analyses, making the form (and its data) more usable by filers, regulators, and investors when evaluating potential redemption behavior and related investor risks.

Some commenters proposed alternative reporting methodologies for shareholder concentration. Some commenters suggested that funds should only be required to report the number of investors with ownership at or above a 5% threshold.⁴¹⁹ Another commenter suggested that funds should report, without attribution, the percentage holdings and type of the top 5 largest investors.⁴²⁰ Reporting only the number of investors above the 5% ownership threshold or only the percentage holdings of the top 5 largest investors would limit the utility of Form N-MFP in monitoring for redemption and liquidity risk. The approach we are adopting is designed to provide a more comprehensive overview of a fund's shareholder concentration and, accordingly, facilitate a more incisive risk analysis. In addition, this approach aligns with the analysis funds already must conduct annually when updating their registration statements.

With respect to the proposed requirement to report the number of investors who own of record or beneficially 5% or more, several commenters suggested that it would be difficult for funds to report the necessary ownership information given omnibus positions. Some commenters suggested amendments to require financial intermediaries to provide certain information to money market funds.⁴²¹ As proposed, funds must report beneficial ownership information only to

⁴¹⁹ See, e.g., Federated Hermes Comment Letter I (suggesting that funds should only report the number of investors that own of record or beneficially 5% or more, distinguishing between record owners and beneficial owners); SIFMA AMG Comment Letter (suggesting that funds disclose the number of investors owning 5% or more of the shares outstanding of a class of a fund).

⁴²⁰ See BlackRock Comment Letter.

⁴²¹ See Federated Hermes Comment Letter I (suggesting that rule 22c-2(a)(2) be amended to require money market funds to enter into agreements with intermediaries to obtain the needed shareholder information); Morgan Stanley Comment Letter (“SEC should consider requiring financial intermediaries holding omnibus positions to provide data periodically and consistently to money market funds regarding the ten largest underlying clients (excluding identities) to assist money market funds in managing liquidity.”);

the extent known by the fund. We recognize that money market funds may not have information about all beneficial owners. We agree with commenters that information about shareholder concentration can help funds manage liquidity and improve stress testing. As such, a fund could consider periodically requesting information from intermediaries about shareholder concentration.

One commenter suggested that shareholder concentration should be reported monthly at the fund level, not the share class level.⁴²² Reporting this information at the share class level provides a more comprehensive view of a fund's overall shareholder concentration and a better understanding of the group of investors that could impact the fund's liquidity. This is particularly relevant in times of stress because the required concentration information is more specific and corresponds to the share class flow level reporting on Form N-MFP. Fund level reporting may still be of value, and the Commission and investors can use the data reported at the class level to then analyze concentration at the fund level if needed. Reporting at the share class level is also appropriate because money market fund shares are sold on a class level and, in addition, such reporting is consistent with the current reporting of shareholder concentration on Form N-1A. Reporting at the share class level also provides insight into customized share classes, which may have unique shareholder compositions for which monitoring at the class level may be particularly important from a liquidity risk perspective.

Shareholder Composition

We are adopting, as proposed, amendments requiring a money market fund that is not a government money market fund or a retail money market fund to provide information about the

BlackRock Comment Letter ("The Commission could assess whether requiring some transparency, such as anonymized flows by client type, could benefit stress testing and liquidity management.").

⁴²² See BlackRock Comment Letter ("[W]e note that the data should be collected monthly at the Fund level and not the share class level. While we understand the SAI currently lists 5% holders at the share class level, we believe that information is provided for a different reason than needing to monitor concentration in a fund.").

composition of its shareholders by type.⁴²³ Accordingly, funds must identify the percentage of investors within the following categories: non-financial corporation; pension plan; non-profit; state or municipal government entity (excluding governmental pension plans); registered investment company; private fund; depository institution and other banking institution; sovereign wealth fund; broker-dealer; insurance company; and other. This information is designed to assist with monitoring the liquidity and redemption risks of institutional money market funds, as different types of investors may pose different redemption risks. We are not requiring this information of government money market funds because these funds have lower redemption and liquidity risks than other money market funds. In addition, we are not applying this requirement to retail funds because these funds, by definition, are limited to retail investors.

With respect to the proposal for funds to report shareholder composition by type, one commenter suggested that the categories of investors should align with the current National Securities Clearing Corporation (“NSCC”) social codes, which some industry participants presently use.⁴²⁴ The NSCC list of social codes includes several dozen distinct designations, which may cause confusion for money market funds completing the disclosures as well as investors reviewing such disclosures. In contrast, our list of general categories better facilitates the disclosure process and provides sufficient detail for Commission staff and investors monitoring liquidity and redemption risk.⁴²⁵

Prime Money Market Funds’ Selling Activity

We are adopting, as proposed, an amendment to require information about the gross market value of portfolio securities a prime money market fund sold or disposed of during the

⁴²³ See Item B.11 of amended Form N-MFP.

⁴²⁴ See Invesco Comment Letter.

⁴²⁵ The categories we are adopting have some overlap with the types of beneficial owners that large liquidity fund advisers and other private fund advisers that report on Form PF use for purposes of that form. See Question 16, Item B, Section 1b of Form PF. As a result, there may be certain efficiencies for money market funds with advisers to liquidity funds or other private funds.

reporting period.⁴²⁶ Commenters did not address this aspect of the proposed requirement. This information will facilitate monitoring of prime money market funds' liquidity management, as well as their secondary market activities in normal and stress periods. It also will improve the availability of data about how selling activity by money market funds relates to broader trends in short-term funding markets. A prime fund will be required to disclose the aggregate amount it sold or disposed of for each category of investment.⁴²⁷ The categories of investments mirror the categories funds already use on Form N-MFP for identifying their month-end holdings (*e.g.*, certificate of deposit, non-negotiable time deposit, financial or non-financial company commercial paper, or U.S. Treasury debt).⁴²⁸ To focus the disclosure on secondary market activity, as proposed, portfolio securities held by a fund until maturity are excluded from the disclosure. We are requiring only prime funds to provide information about securities sold or disposed of because asset liquidation by this type of money market fund contributed to the market stress in March 2020 and during the 2008 financial crisis. In contrast, government funds generally receive inflows during periods of market stress and tend to provide liquidity to the market by investing incoming cash flow in the repurchase agreement market and purchasing securities. Tax-exempt funds are only a small segment of the money market fund industry and are less likely to generate significant liquidity concerns for the broader municipal market.

Liquidity Fees

Consistent with the changes described above in the liquidity fee mechanism section, and in a change from the proposal, we are amending Form N-MFP to require money market funds to report the date on which the liquidity fee was applied, the type of liquidity fee, and the amount of

⁴²⁶ See Part D of amended Form N-MFP. The proposed amendment referred to the “amount” of portfolio securities. We are changing the terminology to “gross market value” in the final amendments to clarify that a fund may not net its purchases and sales for purposes of this reporting item. This clarification is consistent with language in the Proposing Release referring to the “aggregate” amount a fund sold or disposed of. See Proposing Release, *supra* note 6, at text accompanying n.274.

⁴²⁷ See Item D.1 of amended Form N-MFP. Thus, if a prime money market fund sold an instrument and then bought it back during the reporting period, the fund should include the market value of that sale in the reported gross market value of portfolio securities sold during the reporting period.

⁴²⁸ See Item C.6 of current Form N-MFP.

the liquidity fee applied by the fund.⁴²⁹ In addition, we are removing existing reporting requirements on Form N-CR related to the application of liquidity fees because we believe monthly reporting of the frequency, type, and size of liquidity fees on Form N-MFP is more consistent with the modified liquidity fee framework we are adopting than requiring current reporting on Form N-CR.

Share Cancellation

Because the final rule permits stable NAV funds to use share cancellation when interest rates and the fund's gross yield are negative, subject to certain conditions, the final amendments will require a stable NAV fund to report information about its use of share cancellation on Form N-MFP. Specifically, the amendments require a fund to report if it used share cancellation during the reporting period and, if so, the dollar value of shares cancelled, the number of shares cancelled, and the dates on which it used share cancellation.⁴³⁰ This reporting will help the Commission and investors monitor a fund's implementation of RDM share cancellation under final rule 2a-7. Under the proposed rule, the Commission did not need to require separate reporting of a fund's conversion to a floating NAV in response to a negative interest rate event, because investors and the Commission can currently observe such conversion through the fund's reported daily NAVs on Form N-MFP. Given that the final rule will permit the use of RDM share cancellation if a fund meets the rule's conditions, separate reporting of its implementation is important to allow the Commission and investors to assess how all stable NAV funds address negative interest rates.

b. Changes to Improve the Accuracy and Consistency of Currently Reported Information

We are adopting, with the modifications discussed below, several amendments to the information currently reported on Form N-MFP about money market funds and their portfolio

⁴²⁹ See Item A.22 of amended Form N-MFP.

⁴³⁰ See Item B.12 of amended Form N-MFP.

securities, including repurchase agreements. These amendments are designed to, among other things, improve the accuracy and consistency of such information reported on Form N-MFP. However, in response to comments, we are not adopting the full scope of the amendments we proposed such as requirements for lot-level reporting of portfolio holdings and disaggregated information for certain repurchase agreement reporting.

We are adopting amendments that will require additional information about repurchase agreement transactions and standardize how filers report certain information. Specifically, the final amendments will require, as proposed, that filers identify (1) the name of the counterparty in a repurchase agreement;⁴³¹ (2) whether a repurchase agreement is centrally cleared and the name of the central clearing counterparty, if applicable;⁴³² (3) if a repurchase agreement was settled on a triparty platform;⁴³³ and (4) the CUSIP of the securities involved in the repurchase agreement.⁴³⁴ As proposed, the final amendments will also include “cash” as a category of investment that most closely represents the collateral in repurchase agreements.⁴³⁵ However, in a change from the proposal, we are not adopting the amendments to remove the ability of funds to aggregate certain required information if multiple securities of an issuer are subject to the repurchase agreement.

Several commenters disagreed with the proposed removal of the ability of money market funds to aggregate certain required information on Form N-MFP if multiple securities of an issuer are subject to a repurchase agreement.⁴³⁶ These commenters suggested that the additional

⁴³¹ See Item C.1 of amended Form N-MFP.

⁴³² See Item C.8.b. of amended Form N-MFP.

⁴³³ See Item C.8.c. of amended Form N-MFP.

⁴³⁴ See Item C.8.f of amended Form N-MFP.

⁴³⁵ As discussed in the Proposing Release, adding a “cash” category is designed to recognize that cash is sometimes used as collateral for repurchase agreements. We expect that this addition will reduce inaccurate disclosure suggesting that a repurchase agreement is under-collateralized. See Proposing Release, *supra* note 6, at paragraph accompanying n.278; Item C.8.k of amended Form N-MFP.

⁴³⁶ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; CCMR Comment Letter.

reporting in a disaggregated format would impose significant additional operational burdens for funds and that these burdens are not justified by any benefit to the Commission or investors of the additional information.⁴³⁷ For example, one commenter explained that a money market fund can enter into a single repurchase agreement that may cover over one hundred unique CUSIPs, and it would require significant time to prepare and review this data for reporting on Form N-MFP.⁴³⁸

As discussed in the Proposing Release, the proposal to require disaggregated information for repurchase agreements was designed to provide more complete information about securities subject to a repurchase agreement.⁴³⁹ This would assist the Commission's ability to analyze and compare information regarding repurchase agreements on Form N-MFP. The other amendments we are adopting will improve the reported information about repurchase agreements and allow for improved Commission monitoring.⁴⁴⁰ In light of the potential challenges of reporting disaggregated information within five business days of month-end at this time, and considering the benefits of the other information about repurchase agreements we are requiring, we are not requiring funds to report disaggregated information about securities subject to a repurchase agreement at this time. Accordingly, under the final amendments, money market funds will continue to be permitted to aggregate certain required information regarding repurchase agreements under certain conditions.

With respect to other repurchase agreement-related amendments, one commenter argued that the proposed reporting of additional information about the counterparty to the repurchase agreement, whether a repurchase agreement is centrally cleared or a triparty agreement, and the CUSIP of collateral subject to the repurchase agreement are not appropriate given the costs

⁴³⁷ *Id.*

⁴³⁸ *See* BlackRock Comment Letter.

⁴³⁹ *See* Proposing Release, *supra* note 6, at section II.F.2.

⁴⁴⁰ *See* Item C.1 and C.8 of amended Form N-MFP.

involved to provide such information and the limited utility in doing so.⁴⁴¹ Another commenter supported the proposed requirement to report the CUSIP of collateral subject to repurchase agreements.⁴⁴² This commenter further suggested that money market fund managers would not incur substantial additional costs or burdens with respect to reporting CUSIP identifiers of repurchase agreement collateral because such managers more likely than not already rely on the CUSIP reference data to assemble their funds' portfolios. We do not agree with the assertion that the costs are not justified given the potential benefits from requiring this information. As discussed in the Proposing Release, requiring the name of the counterparty and indicating whether a repurchase agreement is centrally cleared will clarify how funds should report this information on the form, as funds currently report varying information about repurchase agreements in response to an item that currently requires the name of the issuer.⁴⁴³ Moreover, the amendments recognize changes that have occurred in the repurchase agreement market since the form was last amended, such as the introduction of centrally cleared (or "sponsored") repurchase agreements. Requiring this additional information is intended to improve data clarity regarding repurchase arrangements and assist us in monitoring money market fund activity in various segments of the market for repurchase agreements, including potentially increased or decreased activity during periods of market stress, which may affect availability of funding for borrowers.

Our proposed amendments to Form N-MFP also included amendments to specify that, for purposes of reporting a fund's schedule of portfolio securities in Part C of Form N-MFP, filers would be required to provide information separately for the initial acquisition of a security and any subsequent acquisitions of the security (*i.e.*, lot-level reporting).⁴⁴⁴ Requiring funds to report information separately for each lot, including the trade date on which the security was acquired

⁴⁴¹ See Federated Hermes Comment Letter I

⁴⁴² See Comment Letter of American Bankers Association (Apr. 11, 2022) ("ABA Comment Letter II") (letter focusing on security identifiers).

⁴⁴³ See Proposing Release, *supra* note 6, at section II.F.2.

⁴⁴⁴ See Proposing Release, *supra* note 6, at section II.C.2.b.

and the yield of the security as of that trade date, could assist the Commission in understanding how long a fund has held a given position and the maturity of the position when it was first acquired.⁴⁴⁵

Several commenters disagreed with this aspect of the proposal.⁴⁴⁶ These commenters expressed concern that public lot-level reporting could reveal trading strategies to predatory traders, and thus should be kept confidential if the Commission requires this information. One commenter did not believe this aspect of the proposal is appropriate given the costs involved to provide such information and the limited utility of the information for the Commission.⁴⁴⁷

Another commenter expressed support for the proposed portfolio securities reporting requirement, but suggested that the Commission periodically evaluate whether any reporting continues to meet policy objectives and remains useful.⁴⁴⁸

After considering these comments, we understand the concern that requiring public lot-level reporting and trade date information may subject filers to the risk that predatory traders and other bad actors may seek to misuse this information. While we continue to believe such information could, among other things, help facilitate the Commission's understanding of money market fund portfolio turnover during normal and stressed market condition, we are also adopting other amendments to Form N-MFP that will help facilitate the Commission's understanding in this area, including new Part D to Form N-MFP, which includes information on prime money market fund portfolio securities sold or disposed of during the reporting period, and more frequent data reporting of daily liquidity, net asset value, and flow data.⁴⁴⁹ In light of the potential risks identified by commenters coupled with the other amendments to Form N-MFP

⁴⁴⁵ See proposed Item C.6 of Form N-MFP.

⁴⁴⁶ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; CCMR Comment Letter.

⁴⁴⁷ See Federated Hermes Comment Letter I.

⁴⁴⁸ See Western Asset Comment Letter.

⁴⁴⁹ See Part B and Part D of amended Form N-MFP.

that we are adopting, we are not requiring public lot-level reporting at this time. Under the final amendments, filers will continue to be permitted but are not required to report information separately for each lot.

We are also adopting, as proposed, certain amendments to Form N-MFP that are intended to make it easier and more efficient to understand information reported on the form. Under current Form N-MFP, filers are required to indicate the category of the money market fund, choosing among categories such as “Treasury,” “Government/Agency,” and “Exempt Government,” among others. We understand that these categories for government money market funds have contributed to confusion and inconsistent approaches to reporting.⁴⁵⁰ Accordingly, we proposed to replace these three categories with a single “Government Category” and include a new subsection that requires government money market funds to indicate whether they typically invest at least 80% of the value of their assets in U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury obligations.⁴⁵¹ These proposed amendments were designed to provide more clarity for filers and supply the Commission with more accurate identification of different types of government money market funds.

Commenters generally did not discuss this specific aspect of the proposal, but the one commenter who addressed this aspect of the proposal supported it.⁴⁵² This commenter stated that the proposed amendments would reduce confusion and inconsistency in categorizing government money market funds. This commenter also supported the proposed addition of a new subsection to identify money market funds that invest in Treasury obligations, either directly or through repurchase agreements. We agree and are adopting the amendments as proposed to money market fund categorization.⁴⁵³

⁴⁵⁰ See Item A.10 of current Form N-MFP.

⁴⁵¹ See Proposing Release, *supra* note 6, at section II.F.2.b.

⁴⁵² See Federated Hermes Comment Letter I.

⁴⁵³ See Item A.10 of amended Form N-MFP.

We are also adopting as proposed a new item in Form N-MFP that would require filers to indicate whether the fund is established as a cash management vehicle for affiliated funds and accounts.⁴⁵⁴ This item is designed to make it easier and more efficient to identify privately offered institutional money market funds. Separately, and as proposed, we are adopting an amendment to the form to require a fund to affirmatively state whether it seeks to maintain a stable price per share, consistent with our proposal.⁴⁵⁵ Commenters generally did not discuss these specific proposals, except one commenter agreed that the proposed requirement to require filers to indicate whether the fund is established as a cash management vehicle for affiliates is sufficiently clear.⁴⁵⁶

Under current Form N-MFP, filers are required to indicate the category of each reported portfolio security using a list of categories designated on the form.⁴⁵⁷ We are adopting as proposed the amendments to the list of categories to distinguish between U.S. Government agency debt categorized as (1) a coupon-paying note and (2) a no-coupon discount note.⁴⁵⁸ This change will assist us in understanding whether an agency security is a weekly liquid asset, as only agency discount notes with less than 60 days to maturity qualify as weekly liquid assets under the rule. In addition, we are adopting as proposed a conforming change to the list of investment categories that a fund must use for purposes of disclosing information about its holdings on its website.⁴⁵⁹

⁴⁵⁴ See Item A.21 of amended Form N-MFP.

⁴⁵⁵ See Item A.18 of amended Form N-MFP.

⁴⁵⁶ See Federated Hermes Comment Letter I.

⁴⁵⁷ See Item C.6 of current Form N-MFP.

⁴⁵⁸ See Item C.6 of amended Form N-MFP.

⁴⁵⁹ See amended rule 2a-7(h)(10)(i)(B)(2). We are also making modernizing changes to rule 2a-7(h)(10) (*e.g.*, by replacing the term “Web site” with “website”) and correcting a typographical error in rule 2a-7(h)(10)(iii) that refers to share prices of \$1.000 and \$10.00 instead of \$1.0000 and \$10.000.

Commenters generally did not discuss these specific amendments, except one commenter expressed support for this aspect of the proposal if the Commission would find this information useful.⁴⁶⁰ As discussed above, this amendment will assist us in reviewing reported information.

Further, we are adopting, as proposed, amendments to require money market funds to report only the amount of any fee waiver or expense reimbursement that occurred during the reporting period.⁴⁶¹ Under current Form N-MFP, funds are required to provide the name of any person who paid for or waived all or part of the fund's operating expenses or management fees during the reporting period and describe the amount and nature of the fee and expense waiver or reimbursement.⁴⁶² As discussed in the Proposing Release, these disclosures are difficult to use because they are provided in a format that is not structured.⁴⁶³ In addition, identification of the person who paid for or waived the fund's expenses or fees is not significantly beneficial to the Commission's monitoring and assessment of fund risks, and investors separately have access to information about fee and expense waivers or reimbursements in funds' financial statements. Commenters generally did not discuss these specific proposals, except one commenter agreed that the simplified fee waiver and expense reimbursement reporting is sufficient.⁴⁶⁴ Accordingly, for the reasons discussed above and in the proposal, we are adopting these amendments as proposed.

c. More Frequent Data Points

As proposed, we are amending Form N-MFP to require a money market fund to provide in its monthly report certain daily data points to improve the utility of the reported information. Specifically, the amendments require a fund to report its percentage of total assets invested in daily liquid assets and in weekly liquid assets, net asset value per share (including for each class

⁴⁶⁰ See Federated Hermes Comment Letter I.

⁴⁶¹ See Item B.9 of amended Form N-MFP.

⁴⁶² See Item B.8 of current Form N-MFP.

⁴⁶³ See Proposing Release, *supra* note 6, at section II.F.2.b.

⁴⁶⁴ See Federated Hermes Comment Letter I.

of shares), and shareholder flow data for each business day of the month.⁴⁶⁵ Currently, in monthly reports on Form N-MFP, a money market fund must provide the same general information on a weekly basis.⁴⁶⁶ Also, under current rule 2a-7, a money market fund must prominently disclose on its website, as of the end of each business day during the preceding six months, the fund's weekly liquid assets and daily liquid assets, as well as the fund's net asset value and net shareholder flow.⁴⁶⁷ The more frequent information on Form N-MFP will allow Commission staff to better and more precisely monitor risks and trends in these areas in an efficient and more precise manner without requiring frequent visits to the websites of many different funds. It also will provide industry-wide daily data in a central repository as a resource for investors and others.⁴⁶⁸ The weekly data currently reported on Form N-MFP provides only a snapshot of the liquidity, net asset value, and flow data for any given month, and is therefore incomplete and less useful for purposes of analysis and monitoring than data for each business day in that month. In addition, most of the data on Form N-MFP is reported as of the end of the month, making it difficult to analyze the weekly data in a comprehensive manner. This is because the weekly data points generally relate to different days than the monthly data points. Consistent with the website information funds already provide, the reported daily data points will be calculated as of the end of each business day.

One commenter opposed the proposal to require liquidity, net asset value, and flow data to be reported as of the close of business on each business day of each month on the basis that it would be unduly burdensome and without any added benefit.⁴⁶⁹ This commenter suggested

⁴⁶⁵ See Items A.13, A.20, B.6, and B.7 of amended Form N-MFP.

⁴⁶⁶ See Items A.13, A.20, B.5, and B.6 of current Form N-MFP.

⁴⁶⁷ 17 CFR 270.2a-7(h)(10)(ii).

⁴⁶⁸ To enhance consistency in reporting practices, filers must report gross subscriptions and gross redemptions as of the trade date (rather than as of the settlement date). This change is designed to ensure that funds are reporting the information in the same manner. Filers that are master-feeder funds must report the required shareholder flow data at the feeder fund level only. See Item B.7 of amended Form N-MFP.

⁴⁶⁹ See Federated Hermes Comment Letter I.

instead that the Commission should look to private data resources where such information is readily available. As discussed in the proposal, although private data vendors provide some daily data based on information gathered from funds' websites, the staff has observed this data can be incomplete at times, and therefore may not be appropriate for purposes of staff monitoring and analyses. Also, money market funds generally are already required to provide on their websites the same data that we are requiring be reported on Form N-MFP, and thus we believe this change will impose minimal burden on money market funds.

As proposed, we are also increasing the frequency with which funds report certain yield information. Currently, funds must report 7-day gross yields (at the series level) and 7-day net yields (at the share class level) as of the end of the reporting period. We are amending Form N-MFP to require funds to report this information for each business day.⁴⁷⁰ One commenter opposed the proposal to require money market funds to report 7-day yield information on a daily basis, suggesting instead that money market funds should, at most, be required to report 7-day yield information on a weekly basis, though the commenter preferred monthly reporting.⁴⁷¹ This commenter suggested that the requirement would place an undue burden on funds and would fail to add value and enhance funds. The higher-frequency reporting, however, will assist in the timely monitoring and assessment of fund risks, particularly during periods of market stress. The additional burdens associated with these amendments are appropriate and justified by the increased investor protection and other benefits.

d. Other Amendments

As proposed, we are amending how advisers report the identity of fund registrants and series.⁴⁷² Under current Form N-MFP, a filer must disclose the registrant's LEI, if available, and

⁴⁷⁰ See Items A.19 and B.8 of amended Form N-MFP.

⁴⁷¹ See Federated Hermes Comment Letter I.

⁴⁷² See Proposing Release, *supra* note 6, at section II.F.2.d.

the form does not require the LEI of the series.⁴⁷³ Filers also currently provide the name of the registrant and series in metadata associated with the form, but they do not report these names on the form itself. As adopted, the amended form will require funds to identify the name and LEI for both the fund registrant and the series.⁴⁷⁴ Requiring reporting of registrant and series names on the form is intended to make the form easier for investors to use. In addition, the change to require LEIs for the registrant and series will align Form N-MFP with other reporting forms, such as Forms N-CEN and N-PORT, which require LEI reporting for the registrant and series.

We are also adopting as proposed amendments to specify that funds should respond to an item request with “N/A” if the information is not applicable (*e.g.*, a company does not have an LEI).⁴⁷⁵ The amended definition of LEI in the form removes language providing that, in the case of a financial institution that does not have an assigned LEI, a fund should instead disclose the RSSD ID assigned by the National Information Center of the Board of Governors of the Federal Reserve System, if any.⁴⁷⁶ Instead, the amendments add RSSD ID as an additional category of “other identifiers” that a fund can use for relevant portfolio securities.⁴⁷⁷ These changes are designed to improve consistency and comparability of information funds report about the securities they hold.

Commenters generally did not discuss these specific aspects of the proposal, except one commenter opposed them without offering a supporting reason or explanation.⁴⁷⁸ For the reasons discussed above, we are adopting the amendments as proposed.

Separately, some commenters suggested that the Commission should provide funds with more time to file reports on the form because the proposed amendments to Form N-MFP would

⁴⁷³ See Item 3 of current Form N-MFP.

⁴⁷⁴ See Items 2, 4, 5, and 6 of amended Form N-MFP.

⁴⁷⁵ See General Instruction A to amended Form N-MFP.

⁴⁷⁶ See General Instruction E to amended Form N-MFP for a revised definition of LEI.

⁴⁷⁷ See Item C.5 of amended Form N-MFP.

⁴⁷⁸ See Federated Hermes Comment Letter I.

increase the volume and frequency of reported data points.⁴⁷⁹ Currently, money market funds must file reports on Form N-MFP by the fifth business day of each month.⁴⁸⁰ Some commenters recommended extending the filing deadline to seven business days after month-end to allow sufficient time for review and verification of the new information.⁴⁸¹ Another commenter recommended an extension of 10 business days following month-end to reduce the risk of error in the submitted data and information to the Commission.⁴⁸² For similar reasons, another commenter recommended an additional three business days, resulting in a filing deadline on the eighth business day of the following month.⁴⁸³ After considering these comments, we are not amending the reporting deadline, and funds will continue to be required to file reports on Form N-MFP by the fifth business day of each month.

As discussed above, we are not adopting the full scope of the amendments we proposed. For example, we are not requiring lot-level reporting of portfolio holdings or disaggregated information if multiple securities of an issuer are subject to a repurchase agreement. In addition, several of the amendments will require funds to report daily data points they already publish on their websites, including liquidity levels and net asset values. Considering the more tailored scope of the final amendments and funds' experience collecting the same or similar data in several cases, we believe the current five business day timeline continues to be appropriate and will ensure timely public access to the data. To the extent that a fund identifies an error in its report after the filing deadline, it can file an amendment to correct the error, as currently

⁴⁷⁹ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; Federated Hermes Comment Letter I; CCMR Comment Letter; Bancorp Comment Letter; Invesco Comment Letter; Capital Group Comment Letter.

⁴⁸⁰ See 17 CFR 270.30b1-7; General Instruction A of current Form N-MFP.

⁴⁸¹ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; Federated Hermes Comment Letter I (responding to Question 132); CCMR Comment Letter; Bancorp Comment Letter.

⁴⁸² See Invesco Comment Letter.

⁴⁸³ See Capital Group Comment Letter.

permitted.⁴⁸⁴ In our experience, only a small number of funds needed to make amendments to Form N-MFP filings to correct reporting issues after the deadline.

3. Amendments to Form PF

The Commission is also amending Form PF, the confidential reporting form for certain SEC-registered investment advisers to private funds to require additional information regarding the liquidity funds they advise. Liquidity funds are private funds that seek to maintain a stable NAV (or minimize fluctuations in their NAVs) and thus can resemble money market funds.⁴⁸⁵ The amendments to section 3 of Form PF will provide a more complete picture of the short-term financing markets in which liquidity funds invest and enhance the Commission's and the Financial Stability Oversight Council's ("FSOC") ability to assess short-term financing markets and facilitate our oversight of those markets and their participants.⁴⁸⁶ This, in turn, is designed to enhance investor protection efforts and systemic risk assessment.⁴⁸⁷ We have consulted with FSOC to gain input on these amendments to help ensure that Form PF continues to provide FSOC with information it can use to assess systemic risk.

In a January 2022 release proposing amendments to Form PF, the Commission proposed changes to section 3 of Form PF that were intended to require large liquidity fund advisers to report substantially the same information that the Commission had proposed money market funds to report on Form N-MFP.⁴⁸⁸ The proposed amendments to section 3 of Form PF included

⁴⁸⁴ See General Instruction A of current Form N-MFP; General Instruction A of amended Form N-MFP.

⁴⁸⁵ For purposes of Form PF, a "liquidity fund" is any private fund that seeks to generate income by investing in a portfolio of short term obligations in order to maintain a stable net asset value per unit or minimize principal volatility for investors. See Form PF: Glossary of Terms.

⁴⁸⁶ In addition, the changes will enhance the Commission's and FSOC's ability to assess short-term financing markets, facilitate the Commission's oversight of those markets, and improve the data quality and comparability by making certain categories in section 3 more consistent with the categories the Federal Reserve Board uses in its reports and analysis.

⁴⁸⁷ The Commission is adopting these amendments, in part, pursuant to its authority under section 204(b) of the Advisers Act, which gives the Commission the authority to establish certain reporting and recordkeeping requirements for advisers to private funds and provides that the records and reports of any private fund to which an investment adviser registered with the Commission provides investment advice are deemed to be the records and reports of the investment adviser.

⁴⁸⁸ See Form PF Proposing Release, *supra* note 14; Proposing Release, *supra* note 6, at section II.F.2.

requirements for additional and more granular information regarding large liquidity fund operational information and assets, portfolio holdings, financing, and investor information as well as a new item concerning the disposition of portfolio securities.⁴⁸⁹ Consistent with the final amendments to Form N-MFP, we are adopting largely as proposed the amendments to section 3 of Form PF, with some modifications to better tailor the reporting to private liquidity funds and remain consistent with the final requirements for money market funds under amended Form N-MFP.

We received limited comments regarding the proposed amendments to section 3 of Form PF.⁴⁹⁰ Two commenters were supportive of the changes, with one commenter stating that it was reasonable to require the large liquidity fund advisers to provide comprehensive reports to the SEC on their operations and financial condition.⁴⁹¹ This commenter argued that if a significant difference between the requirements applicable to money market funds and liquidity funds exists, this difference could allow for a significant but hidden risk to develop.⁴⁹² In contrast, another commenter argued that the proposed changes to Form PF would represent a fundamental shift from the original intent of Form PF to assist the FSOC in its monitoring obligations and questioned whether additional data was necessary.⁴⁹³

We do not agree that the proposed amendments represent a fundamental shift from the original intent of Form PF. The Commission adopted Form PF, as required by the Dodd-Frank Act, to enhance FSOC’s monitoring and assessment of systemic risk; to provide information for FSOC’s use in determining whether and how to deploy its regulatory tools; and to collect

⁴⁸⁹ See Form PF Proposing Release, *supra* note 14, at section II.C.

⁴⁹⁰ See Comment Letter of Better Markets on File No. S7-01-22 (Mar. 21, 2022) (“Better Markets Comment Letter on File No. S7-01-22”); Comment Letter from Andres Loubriel on File No. S7-01-22 (Oct. 13, 2022) (“Loubriel Comment Letter on File No. S7-01-22”); Comment Letter of New York City Bar Association on File No. S7-01-22 (Mar. 21, 2022) (“NYC Bar Comment Letter on File No. S7-01-22”). Comment letters on the Form PF Proposing Release (File No. S7-01-22) are available at <https://www.sec.gov/comments/s7-01-22/s70122.htm>.

⁴⁹¹ See Better Markets Comment Letter on File No. S7-01-22; Loubriel Comment Letter on File No. S7-01-22.

⁴⁹² See Better Markets Comment Letter on File No. S7-01-22.

⁴⁹³ See NYC Bar Comment Letter on File No. S7-01-22.

additional data for the Commission’s use in its own regulatory program, including examinations, investigations, and investor protection efforts relating to private fund advisers.⁴⁹⁴ The final amendments to section 3 of Form PF are designed to provide the Commission and FSOC with a more complete picture of the short-term financing markets in which liquidity funds invest, and in turn, enhance the Commission’s and FSOC’s ability to assess the potential market and systemic risks presented by liquidity funds’ activities and facilitate our oversight of those markets and their participants. Specifically, we believe that the additional and more granular information the final amendments require will enable the Commission and FSOC to better assess liquidity funds’ asset turnover, liquidity management and secondary market activities, subscriptions and redemptions, and ownership type and concentration. This information may be used to analyze funds’ liquidity and susceptibility to the risk of runs, which may give rise to systemic risk concerns. In addition, the information can be used for identifying trends in the liquidity fund industry during normal market conditions and for assessing deviations that may serve as signals for changes in short-term funding markets. These amendments also are designed to improve data quality and comparability. Together, the amendments are intended to enhance investor protection efforts and systemic risk assessment and, further, are consistent with the original intent of Form PF.

Our Form PF amendments apply only to large liquidity fund advisers, which generally are SEC-registered investment advisers that advise at least one liquidity fund and manage, collectively with their related persons, at least \$1 billion in combined liquidity fund and money market fund assets.⁴⁹⁵ Large liquidity fund advisers today are required to file information on Form PF quarterly, including certain information about each liquidity fund they manage. Under

⁴⁹⁴ See Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF, Investment Advisers Act Release No. 3308 (Oct. 31, 2011) [76 FR 71128 (Nov. 16, 2011)] (“2011 Form PF Adopting Release”), at sections II and V; *see also* Amendments to Form PF to Require Event Reporting for Large Hedge Fund Advisers and Private Equity Fund Advisers and to Amend Reporting Requirements for Large Private Equity Fund Advisers, Advisers Act Release No. 6297 (May 3, 2023) [88 FR 38146 (June 12, 2023)] (“2023 Form PF Adopting Release”).

⁴⁹⁵ See Instruction 3 to Form PF.

our final amendments, we are amending the reporting requirements for section 3 of Form PF as follows:

- *Operational Information.* We are adopting as proposed amendments to revise how advisers report operational information about their liquidity funds. Under current Form PF, advisers must report whether the liquidity fund uses certain methodologies to compute its net asset value.⁴⁹⁶ These questions sought to determine how the fund might try to maintain a stable net asset value.⁴⁹⁷ The final amendments replace these questions with a requirement for advisers to report the information more directly, by requiring advisers to report whether the liquidity fund seeks to maintain a stable price per share and, if so, to provide the price it seeks to maintain.⁴⁹⁸ As proposed, the final amendments also remove current Question 54 of Form PF, which requires advisers to report whether the liquidity fund has a policy of complying with certain provisions of rule 2a-7, as we can use portfolio information we collect in section 3, Item E, to determine whether the liquidity fund is complying with rule 2a-7, regardless of whether it has a policy or not.
- *Assets and portfolio information.* We are adopting largely as proposed amendments to how advisers report assets and portfolio information in section 3. With respect to fund assets, as proposed, the final amendments will require advisers to report cash separately from other categories when reporting assets and portfolio information concerning repo collateral.⁴⁹⁹ Currently, there is not a distinct category for cash for reporting fund

⁴⁹⁶ See current Form PF, section 3, Item A, Questions 52 and 53.

⁴⁹⁷ See Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF, Release No. 3145 (Jan. 26, 2011) [76 FR 8068 (Feb. 11, 2011)], at n.133 and accompanying text.

⁴⁹⁸ See amended Form PF, section 3, Item A, Question 52.

⁴⁹⁹ See, e.g., amended Form PF, section 3, Item B, Question 53(j).

assets.⁵⁰⁰ We are also adopting as proposed an amended definition of the term “weekly liquid assets” to specify that the term includes “daily liquid assets.”⁵⁰¹

As proposed, the final amendments also will require advisers to report additional identifying information about each portfolio security, including the name of the counterparty of a repo.⁵⁰² Currently, section 3 requires advisers to name the issuer. However, for repos, it is not clear whether advisers should report the name of the counterparty of the repo, the name of the clearing agency (in the case of centrally cleared repos), or both. The final amendments will address this ambiguity.⁵⁰³ In addition, under the final amendments, if an adviser reports an “other unique identifier” in identifying a portfolio security, the adviser will be required to describe that identifier.⁵⁰⁴ This will improve reported data quality and comparability. We are also revising, as proposed, the list of categories of investments that advisers will use to identify a portfolio security in Item E of section 3.⁵⁰⁵ Accordingly, the amended form will require advisers to distinguish between U.S. Government agency debt categorized as (1) a coupon-paying note and (2) a no-coupon discount note. These changes will provide more granular information and will enhance the Commission and FSOC’s assessment of systemic risk and the Commission’s investor protection oversight efforts.

Consistent with the proposed amendments to Form N-MFP, the Commission had proposed to require large liquidity fund advisers to provide information separately for initial and subsequent transactions relating to securities purchased or sold by their

⁵⁰⁰ See current Form PF, section 3, Item B, Question 55.

⁵⁰¹ See amended Form PF Glossary of Terms.

⁵⁰² See amended Form PF, section 3, Item E, Question 62.

⁵⁰³ See *id.*

⁵⁰⁴ See amended Form PF, section 3, Item E, Question 62(e).

⁵⁰⁵ See amended Form PF, section 3, Item E, Question 62(f).

liquidity funds during the reporting period.⁵⁰⁶ As discussed in section II.F.2.b above, we are not adopting such lot level requirements in Form N-MFP and, accordingly, we are not adopting the proposed lot level reporting requirements for Form PF at this time. The form as amended will continue to require an adviser to report the coupon, if applicable, when reporting the title of the issue.⁵⁰⁷ We proposed to remove this requirement in connection with the addition of lot level reporting.

- *Additional Repo Reporting.* In addition to the changes discussed above, we are adopting further amendments to how advisers report information about repos, largely as proposed. The final amendments will require advisers to provide clearing information for repos to inform the Commission and FSOC about liquidity fund activity in various segments of the market.⁵⁰⁸ However, in a change from the proposal and consistent with the final amendments discussed above, amended Form PF will continue to permit the advisers to aggregate certain information if multiple securities of an issuer are subject to a repo.⁵⁰⁹ This change from the proposal aligns with comparable reporting requirements under amended Form N-MFP.
- *Subscriptions/Redemptions.* We are adopting, as proposed, an amendment to Item B of section 3 that will require information about subscriptions and redemptions. Specifically, under the final amendments, advisers must report the total gross subscriptions (including dividend reinvestments) and total gross redemptions for each month of the reporting period.⁵¹⁰
- *Financing information.* We are adopting, as proposed, amendments to revise how advisers report financing information to indicate whether a creditor is based in the United

⁵⁰⁶ See Form PF Proposing Release, *supra* note 14, at section II.C.

⁵⁰⁷ See amended Form PF, section 3, Item E, Question 62(b).

⁵⁰⁸ See amended Form PF, section 3, Item E, Question 62(g)(ii) through (iv).

⁵⁰⁹ See amended Form PF, section 3, Item E, Question 62(g).

⁵¹⁰ See amended Form PF, section 3, Item B, Question 53(k) and (l).

States and whether it is a “U.S. depository institution,” rather than a “U.S. financial institution,” as section 3 currently provides.⁵¹¹ As amended, advisers will also be required to indicate whether a creditor is based outside the U.S., but will not have to indicate whether that non-U.S. creditor is a depository institution. This amendment is designed to make the categories in section 3 more consistent with the categories the Federal Reserve Board uses in its reports and analysis.⁵¹²

- *Investor information.* We are adopting, largely as proposed, amendments to how advisers report investor information. As proposed, instead of requiring advisers to report how many investors beneficially own five percent or more of the liquidity fund’s equity, section 3 will require advisers to provide the following information for each investor that beneficially owns five percent or more of the reporting fund’s equity: (1) the type of investor; and (2) the percent of the reporting fund’s equity owned by the investor.⁵¹³ This information will help inform the Commission and FSOC of the liquidity and redemption risks of liquidity funds, because different types of investors may pose different types of redemption risks. For example, if a market event results in a certain type of investor exercising redemption rights, liquidity funds with a homogenous investor base composed of that type of investor could face greater redemption risks, which could raise systemic risk implications, as compared to liquidity funds with a more diversified investor base.

However, we are adopting these amendments with one modification from the proposal. Where an adviser selects “other” as an investor category in response to this question, unlike the proposal, the final amendments will require the adviser to describe the investor further in its response to section 1, Question 4.⁵¹⁴ This modification is

⁵¹¹ See amended Form PF, section 3, Item C, Question 54(b).

⁵¹² The Chairman of the Federal Reserve Board is a member of FSOC.

⁵¹³ See amended Form PF, section 3, Item D, Question 58.

⁵¹⁴ See amended Form PF, section 3, Item D, Question 58(b).

designed to provide the Commission and FSOC with greater transparency into the investor base of such funds. In addition, we are adopting as proposed a new question requiring advisers to report whether the liquidity fund is established as a cash management vehicle for other funds or accounts that the adviser or the adviser's affiliates manage that are not cash management vehicles.⁵¹⁵

- *Disposition of portfolio securities.* We are adopting, largely as proposed, new Item F (Disposition of Portfolio Securities) to section 3 of Form PF. Under the amendments, advisers will report information about the portfolio securities the liquidity fund sold or disposed of during the reporting period (not including portfolio securities that the fund held until maturity). Advisers will report the gross market value sold or disposed of for each category of investment.⁵¹⁶ We are also making a formatting change to improve the table presentation of the requirements for reporting the disposition of portfolio securities under section 3, Question 64, Item F, without altering the information reported thereunder.
- *Weighted average maturity and weighted average life.* In addition, we are adopting, as proposed, revisions to the definitions of “WAM” and “WAL” to include an instruction to calculate these figures with the dollar-weighted average based on the percentage of each security’s market value in the portfolio.⁵¹⁷ This change will help ensure advisers calculate WAM and WAL using a consistent approach across both Form PF and Form N-MFP, which will improve data quality and comparability and in turn will enhance investor protection efforts and systemic risk assessment.

⁵¹⁵ See amended Form PF, section 3, Item D, Question 57.

⁵¹⁶ Under the final amendments, advisers will be required to report the gross market value of portfolio securities sold or disposed of, rather than the “amount” of such securities as proposed, for consistency with Form N-MFP as adopted. See amended Form PF, section 3, Item F, Question 63; Item D.1 of amended Form N-MFP.

⁵¹⁷ See amended Form PF Glossary of Terms. This calculation methodology is consistent with amended rule 2a-7’s definitions of WAM and WAL.

As discussed in the 2022 Form PF Proposing Release, together these amendments will improve the transparency of liquidity fund activities and risks and help the Commission and FSOC in developing a more complete picture of the short-term financing markets where liquidity funds operate.⁵¹⁸ In turn, this will enhance the Commission's and FSOC's ability to assess the potential systemic risks presented by liquidity funds' activities and inform the Commission's investor protection efforts. In addition, the amendments will, among other things, improve data comparability across liquidity funds and money market funds, which will assist regulators with oversight and assessment of short-term financing markets and their participants.

G. Technical Amendments to Form N-CSR and Form N-1A

We are adopting amendments to two Commission forms to correct technical errors resulting from recent Commission rulemakings. First, we are adopting an amendment to Form N-CSR to retain an exception addressing money market funds' financial statements that was inadvertently omitted as a result of amendments adopted in the Tailored Shareholder Reports Adopting Release.⁵¹⁹ Second, we are adopting amendments to Item 27A(i) of Form N-1A and the corresponding instructions to correct an error resulting from the Commission's 2022 rulemaking on enhanced reporting of proxy votes by registered management investment companies.⁵²⁰

⁵¹⁸ See Form PF Proposing Release, *supra* note 14, at section II.C.

⁵¹⁹ See Tailored Shareholder Reports Adopting Release, *supra* note 347. In this release, the Commission adopted amendments under which open-end funds' financial statements will no longer appear in their annual and semi-annual shareholder reports, but instead will be filed on Form N-CSR (under amended Item 7 of Form N-CSR). Pursuant to Instruction 2 to Item 27(b)(1) of Form N-1A, as this item appeared prior to the amendments in the Tailored Shareholder Reports Adopting Release, a money market fund was permitted to omit Schedule I—Investments in securities of unaffiliated issuers—from its annual report under specified circumstances. This exception was omitted inadvertently in the corresponding Item 7 of the amended Form N-CSR in the Tailored Shareholder Reports Adopting Release. We did not intend to remove this exception, and therefore are amending the instruction to Item 7 of Form N-CSR to add language mirroring the parallel exception that formerly appeared in Form N-1A as Instruction 2 to Item 27(b)(1).

⁵²⁰ See Enhanced Reporting of Proxy Votes by Registered Management Investment Companies; Reporting of Executive Compensation Votes by Institutional Investment Managers, Investment Company Act Release No. 34745 (Nov. 2, 2022) [87 FR 78770 (Dec. 22, 2022)] ("2022 Form N-PX Release"). The Tailored Shareholder Reports Adopting Release included amendments to Form N-1A that moved certain content requirements for funds' shareholder reports from Item 27 of Form N-1A to new Item 27A of Form N-1A. New Item 27A(i) addresses the website availability of additional fund information, including proxy voting information. The 2022 Form N-PX Release, which the Commission issued after it issued the Tailored Shareholder Reports Adopting Release, erroneously included amendments to Form N-1A Item 27—rather than new Item 27A—that address disclosure of the website availability of a fund's proxy voting record in

Under the Administrative Procedure Act (“APA”), notice of proposed rulemaking is not required when the agency, for good cause, finds “that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.”⁵²¹ These amendments are ministerial in nature. Accordingly, we find good cause that publishing the amendments for comment is unnecessary.⁵²² These ministerial amendments do not make any substantive modifications to any existing collection of information requirements or impose any new substantive recordkeeping or information collection requirements within the meaning of the Paperwork Reduction Act of 1995 (“PRA”).⁵²³ Accordingly, we are not revising any burden and cost estimates in connection with these amendments.

H. Effective and Compliance Dates

We are adopting a tiered approach to the transition periods for the final amendments.⁵²⁴ The tiered approach to effective and compliance dates is designed to provide affected funds with appropriate transition periods in which to prepare to comply with certain aspects of the final amendments, such as the amendments to rule 2a-7’s mandatory and discretionary liquidity fee frameworks, without unnecessarily delaying the full scope of the amendments. The effective date for the final amendments to rule 2a-7, rule 31a-2, and Form N-1A is 60 days after publication in the **Federal Register**, with applicable compliance dates for mandatory and discretionary liquidity fees, liquidity-related amendments, website posting requirements, and WAM and WAL calculations described below. The effective date for the technical amendments to Form N-CSR

the fund’s annual and semi-annual shareholder reports, and the provision of this information to investors upon request. Accordingly, we are adopting amendments to incorporate into Item 27A(i) the requirement, pursuant to the 2022 Form N-PX Release, that the proxy voting information whose website availability funds disclose in their shareholder reports includes the fund’s proxy voting record. These amendments also incorporate into Item 27A(i) the same instructions about the provision of this information upon request that the Commission adopted in the 2022 Form N-PX Release in Item 27.

⁵²¹ 5 U.S.C. 553(b).

⁵²² The amendments also do not require analysis under the Regulatory Flexibility Act (“RFA”). *See* 5 U.S.C. 601(2) (for purposes of RFA analysis, the term “rule” generally means any rule for which the agency publishes a general notice of proposed rulemaking).

⁵²³ 44 U.S.C. 3501 through 3521.

⁵²⁴ *See* Proposing Release, *supra* note 6, at section II.G.

and Form N-1A also is 60 days after publication in the **Federal Register**. For the final amendments to Forms N-MFP, N-CR, and PF, we are adopting a delayed effective and compliance date of June 11, 2024.

Effective Date for Forms N-MFP, N-CR, and PF and Compliance Date for Website

Posting Requirement under Rule 2a-7

The Commission proposed a six-month compliance period following the effective date for the Forms N-MFP and N-CR amendments, except for the existing fee and gate reporting requirements in Form N-CR. In a change from the proposal, rather than permit filers additional time to comply with the amendments to Forms N-MFP and N-CR following the effective date of such amendments, we are adopting a simultaneous delayed effective and compliance date for these form amendments to provide time for affected funds and advisers to prepare to comply with the form amendments and provide for a uniform transition to the updated reporting requirements. For example, having separate effective and compliance dates for Form N-MFP could cause reporting that is inconsistent across filers because some filers might voluntarily provide newly required information after the effective date of the amendments but before the compliance date, while other filers might wait until the compliance date to provide the new information. We therefore are adopting a delayed effective and compliance date of June 11, 2024, for the amendments to Forms N-MFP, N-CR, and PF. We are also adopting the same compliance date of June 11, 2024, for the amendment to rule 2a-7 regarding how funds categorize their portfolio investments for purposes of website disclosures, as this change in categorization aligns with amendments to Form N-MFP.⁵²⁵

A few commenters recommended an implementation period of at least twelve months for any new and revised reporting requirements.⁵²⁶ In addition, one commenter recommended an 18

⁵²⁵ See amended rule 2a-7(h)(10)(i)(B)(2).

⁵²⁶ See, e.g., ICI Comment Letter; Invesco Comment Letter; State Street Comment Letter.

to 24 month compliance period for all aspects of the proposed amendments.⁵²⁷ We are not persuaded that this amount of additional time is needed for affected funds and advisers to comply with the amended reporting requirements because, as discussed above, we are not adopting certain proposed reporting requirements, such as lot-level reporting and disaggregated reporting for repurchase agreements, which will significantly reduce the compliance burden on filers relative to the proposal. In addition, several of the amendments to Form N-MFP will require funds to report daily data points they already publish on their websites, including liquidity levels and net asset values.

Considering the more tailored scope of the final amendments and funds' experience collecting the same or similar data in several cases, we believe the delayed effective date of June 11, 2024, will provide adequate time for affected funds and advisers to compile and review the information that must be disclosed. As a result, all reports on Forms N-MFP, N-CR, and PF filed on or after June 11, 2024, must comply with the amendments.⁵²⁸

We are adopting the same delayed effective and compliance date for Form PF as for Form N-MFP because the amendments to Form PF are designed in part to require large liquidity fund advisers to report substantially the same information that money market funds would report on Form N-MFP. Accordingly, adopting the same delayed effective and compliance date for amendments to Form N-MFP and PF will result in a uniform transition to the enhanced reporting obligations.

Compliance Dates for Mandatory and Discretionary Liquidity Fee Frameworks

We are adopting a compliance date for the mandatory liquidity fee framework that is twelve months after the effective date of the final amendments to rule 2a-7. This transition period is designed to provide institutional prime and institutional tax-exempt money market funds with

⁵²⁷ See T. Rowe Comment Letter.

⁵²⁸ For example, a money market fund's report on Form N-MFP for the month of June 2024 that is due no later than the fifth business day of July 2024 must comply with the amended reporting requirements.

an appropriate amount of time to comply with the new requirements. The Commission proposed a twelve-month transition period for the proposed swing pricing requirements in rule 2a-7. Under the final amendments, we are adopting a mandatory liquidity fee framework in place of the proposed swing pricing requirements and believe institutional prime and institutional tax-exempt money market funds should receive a comparable amount of time in which to comply with these requirements as were proposed for the swing pricing requirements.

Generally commenters advocated for a longer compliance period for the proposed swing pricing requirements, with most of these commenters suggesting 2 years.⁵²⁹ These commenters frequently cited operational challenges and systems changes, including coordination with third party vendors, which would necessitate more time to adopt and implement swing pricing. A few commenters recommended longer for the swing pricing compliance period than proposed, but did not suggest a specific length of time.⁵³⁰

The adopted mandatory liquidity fee framework in rule 2a-7 will require institutional prime and institutional tax-exempt money market funds to update policies and procedures, implement operational and systems changes, and coordinate with third party vendors, among other things. As affected institutional prime and institutional tax-exempt money market funds currently are permitted to impose liquidity fees and are subject to a default liquidity fee when a fund's weekly liquid assets fall below 10%, we believe that many funds and their intermediaries likely will be better positioned to comply with the amended liquidity fee framework than to the proposed swing pricing requirements within 12 months following the effective date.

Accordingly, we are not persuaded by the concerns raised by commenters regarding the proposed twelve-month transition period and are adopting a compliance date for the new mandatory liquidity fee framework that is twelve months after the effective date of the rule amendments.

⁵²⁹ See, e.g., SIFMA AMG Comment Letter; ICI Comment Letter; Invesco Comment Letter; State Street Comment Letter; Bancorp Comment Letter; Federated Hermes Comment Letter I; Capital Group Comment Letter; CCMR Comment Letter.

⁵³⁰ See IIF Comment Letter; Dechert Comment Letter.

Separately, we are adopting a six-month compliance date for non-government money market funds to comply with the amended discretionary liquidity fee framework. Similar to the mandatory liquidity fee framework, all money market funds seeking to rely on the discretionary liquidity fee framework will need to update policies and procedures, implement operational and systems changes, and coordinate with third party vendors, among other things. However, the discretionary liquidity fee framework is similar to the current liquidity fee provisions in rule 2a-7 without the tie between liquidity fees and weekly liquid assets and provides money market fund boards with additional discretion in implementing these fees. Accordingly, we believe that non-government money market funds will require a shorter transition period than the transition period provided for the new mandatory liquidity fee framework and believe a six-month transition period is appropriate for these amendments.

Affected money market funds, including government money market funds that choose to rely on the discretionary liquidity fee framework, may begin to rely on the mandatory and discretionary liquidity fee provisions after the amendment's effective date and prior to the applicable compliance date.

Compliance Date for Liquidity and Maturity-Related Amendments to Rule 2a-7

We are adopting a compliance date that is six months after the effective date of the amendments to rule 2a-7 for the following amendments:

- Amendments to rule 2a-7's portfolio liquidity requirements discussed in section II.C; and
- Amendments to specify the calculation of WAM and WAL discussed in section II.E.

The Commission proposed a compliance date for the increased daily liquid asset and weekly liquid asset minimum liquidity requirements of six months after the effective date. Some commenters recommended a longer compliance period for the proposed liquidity changes,

generally twelve months.⁵³¹ We are not persuaded that additional time is needed for affected funds to comply with the amended minimum liquidity requirements. These amendments merely increase an existing framework, and many funds already maintain liquidity close to the newly adopted minimums. Accordingly, we continue to believe a six-month transition period should be sufficient for funds to implement the increased liquidity requirements. We believe that a six-month transition period provides sufficient time for funds to update their stress testing procedures and begin to notify their boards of significant liquidity events. Money market funds are currently required to engage in periodic stress testing so these changes will represent updates to an existing framework. In addition, we understand that many funds already notify their boards of certain declines in liquidity. Accordingly, six months is an adequate amount of time for funds to implement these procedural changes. In addition, six months is sufficient for funds to update their WAM and WAL calculations, as needed. As recognized above, funds already have the market values they need for purposes of the amended WAM and WAL calculations, and many funds already compute these figures in accordance with the approach the final rule specifies.

No Separate Compliance Date for Remaining Amendments to Rule 2a-7, Rule 31a-2, and Form N-1A

The amendments to rule 2a-7 and Form N-1A that are not subject to additional compliance periods above, which includes removal of redemption gates, removal of the tie between liquidity fees and liquidity thresholds, and the new provision allowing share cancellation under certain circumstances, will go into full effect 60 days after publication in the **Federal Register** with no separate compliance date. As a result, funds will no longer be permitted to impose redemption gates under rule 2a-7 as of this date. Similarly, the connection between liquidity fees and weekly liquid asset thresholds will be removed at that time. The Commission proposed that the amendments to remove liquidity fee and redemption gate

⁵³¹ See, e.g., ICI Comment Letter; State Street Comment Letter.

provisions in rule 2a-7, as well as the associated disclosure requirements, would be effective, if adopted, when the final rule became effective. Several commenters expressly supported the immediate effective date to remove these provisions.⁵³² We believe that this approach is appropriate since, as discussed, these tools did not provide the benefit intended when adopted and likely contributed to investors' decisions to redeem their shares in money market funds in March 2020. In addition, the amendments to permit the use of share cancellation in a negative interest rate environment, subject to certain conditions, will become effective 60 days after publication in the **Federal Register**. As a result, funds could begin to use share cancellation, as appropriate, after this date, provided they meet the rule's conditions for using share cancellation.

Further, the amendments to rule 31a-2 to require money market funds to preserve records regarding their liquidity fee computations will become effective 60 days after publication in the **Federal Register**. Money market funds are not required to comply with the amended liquidity fee requirements in rule 2a-7 until after that date, but the earlier effectiveness of the recordkeeping requirement will require that funds preserve records for any liquidity fees they may apply prior to the end of the compliance period for the liquidity fee requirements.

III. OTHER MATTERS

Pursuant to the Congressional Review Act, the Office of Information and Regulatory Affairs has designated the final amendments as a "major rule" as defined by 5 U.S.C. 804(2). If any of the provisions of these rules, or the application thereof to any person or circumstance, is held to be invalid, such invalidity shall not affect other provisions or application of such provisions to other persons or circumstances that can be given effect without the invalid provision or application.

⁵³² See, e.g., Federated Hermes Comment Letter I (supporting the immediate effectiveness of delinking liquidity fees and redemption gates from liquidity thresholds); State Street Comment Letter.

IV. ECONOMIC ANALYSIS

A. Introduction

The Commission is mindful of the economic effects, including the costs and benefits, of the final amendments. Section 2(c) of the Investment Company Act provides that when the Commission is engaging in rulemaking under the Act and is required to consider or determine whether an action is consistent with the public interest, the Commission shall also consider whether the action will promote efficiency, competition, and capital formation, in addition to the protection of investors. Section 202(c) of the Advisers Act provides that when the Commission is engaging in rulemaking under the Act and is required to consider or determine whether an action is necessary or appropriate in the public interest, the Commission shall also consider whether the action will promote efficiency, competition, and capital formation, in addition to the protection of investors. The analysis below addresses the likely economic effects of the final amendments, including the anticipated and estimated benefits and costs of the amendments and their likely effects on efficiency, competition, and capital formation. The Commission also discusses the potential economic effects of certain alternatives.

Money market funds serve as intermediaries between investors seeking to manage cash and receive a return on their savings, and issuers seeking to raise capital. Specifically, money market funds pool a diversified portfolio of short-term debt instruments (such as government and municipal debt, repurchase agreements, commercial paper, certificates of deposit, and other short-term debt instruments), and sell shares to end investors, who use money market funds to manage liquidity needs. Money market funds play an important role in investors' savings and liquidity management and serve as a source of short-term funding to financial and non-financial companies and governments. However, funding of money market funds is subject to daily and intraday redemptions.⁵³³

⁵³³ See Proposing Release at 7292-7294 for an analysis of portfolio holdings of different types of money market funds.

As discussed in detail in the sections that follow, the final amendments seek to address liquidity externalities in money market funds. Under some circumstances, redeeming investors impose negative liquidity externalities on investors remaining in the fund. Should redemptions lead to dilution, they may amplify a first-mover advantage, further incentivizing redemptions. For example, when early redemptions force a money market fund to draw down on liquid assets, they reduce overall fund liquidity available for future redemptions. By reducing liquidity externalities in money market funds, the final amendments may dampen the risk of runs on money market funds.

The final amendments may mitigate liquidity externalities and run risk in money market funds in three ways. First, the removal of the tie between weekly liquid assets and the potential imposition of liquidity fees and the elimination of redemption gates under rule 2a-7 may reduce incentives of investors to redeem early to avoid losing liquidity during a potential gating period.⁵³⁴ Second, the increases in minimum liquidity requirements may support funds' ability to meet redemptions from cash or securities convertible to cash, which may reduce transaction costs associated with redemptions and corresponding dilution borne by remaining investors. This may be especially important in market conditions in which money market funds cannot rely on a secondary or dealer market to provide liquidity. Third, the liquidity fee framework is intended to require redeeming investors to absorb the liquidity costs they impose on the fund, protecting non-transacting investors from being diluted by redeeming investors.⁵³⁵ Moreover, to the degree that dilution may contribute to a first mover advantage in investor redemptions the liquidity fee framework may reduce such incentives. These effects may be especially significant in times of stress, when liquidity externalities of money market fund redemptions may be more significant.

⁵³⁴ See, e.g., Northern Trust Comment Letter; CFA Comment Letter; Western Asset Comment Letter; Allspring Funds Comment Letter; IIF Comment Letter; SIFMA AMG Comment Letter.

⁵³⁵ Factors other than dilution costs – such as falling asset prices and potential differences between a fund's net asset value and execution prices – may also contribute to runs. These and other considerations are discussed in greater detail in section IV.B below.

In addition, the Commission is adopting amendments to Form N-CR and Form N-MFP, which may enhance Commission oversight over redemption activity and liquidity risks in money market funds. Similarly, the Commission is finalizing amendments to Form PF to require generally parallel reporting requirements for liquidity funds. These amendments may improve the transparency of liquidity fund activities and risks and help the Commission and FSOC in developing a more complete picture of short-term financing markets, in which money market funds and liquidity funds operate.

Finally, the final amendments related to negative yields will provide an additional mechanism that government and retail money market funds could use to handle a negative interest rate scenario, while offering valuable flexibility to funds and enhancing transparency about this decision to investors. Similarly, as discussed in greater detail below, the amendments to specify the method of calculation of weighted average maturity and weighted average life will enhance comparability of these metrics across affected funds and increase transparency to the Commission and investors.

In response to comment regarding the assumptions underlying the proposal's cost-benefit analysis,⁵³⁶ we note that the economic analysis discusses, among other considerations, how the final rule's costs and benefits reflect current liquidity management practices of money market funds, incentives of fund managers, and run risk. In addition, as discussed in section II above, the final rule has been modified in many significant ways relative to the proposal to reflect commenter feedback. For example, the final rule imposes a liquidity fee framework in lieu of the proposed swing pricing requirement, modifies amendments related to potential negative interest rates relative to the proposal, and tailors disclosure requirements to reduce burdens on money market funds.

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See, e.g., Federated Hermes Comment Letter IV.

Many of the benefits and costs discussed below are difficult to quantify. For example, we lack data to quantify how funds currently below the new liquidity thresholds may adjust the liquidity of their portfolios and how this may impact fund yields in different interest rate environments; the extent to which investors may move capital from institutional prime to government money market funds; or the reductions in dilution costs to investors as a result of the final amendments (which will depend on investor redemption activity, the liquidity risk of underlying fund assets, and market conditions). Many of these effects will depend on how affected funds and investors may react to the final amendments. In addition, we cannot quantify how large private liquidity fund advisers may adapt existing systems and levels of technological expertise in response to the final rule. Data needed to quantify these economic effects are not currently available and the Commission does not have information or data that would allow such quantification. While we have attempted to quantify economic effects where possible, much of the discussion of economic effects is qualitative in nature.

B. Baseline

1. Money Market Funds

a. Money Market Funds: Affected Entities

The final amendments would directly affect money market funds registered with the Commission. From Form N-MFP data, there are a total of 294 funds with approximately \$5.7 trillion in total net assets that may be affected by various aspects of the final amendments.⁵³⁷ Table 3 and Table 4 below estimate the number and total net assets of funds by fund type as of the end of March 2023. Prime money market funds account for approximately 20% of the total net assets in the industry, whereas tax-exempt money market funds account for approximately 2%.

Table 3: Number of Money Market Funds by Fund Type, as of March 2023.

Category	Fund Type	Count	Share
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See, e.g., Money Market Fund Statistics, released 4/25/2023, available at <https://www.sec.gov/files/mmf-statistics-2023-03.pdf>.

Prime	Institutional Public	31	11%
	Institutional Nonpublic	9	3%
	Retail	20	7%
Tax-exempt	Institutional	12	4%
	Retail	39	13%
Government & Treasury	Government	133	45%
	Treasury	50	17%
Total	Total	294	100%

Source: Form N-MFP

Table 4: Money Market Fund Net Assets by Fund Type (\$ Billions), as of March 2023.

Category	Fund Type	Net Assets	Share
Prime	Institutional Public	311.8	5%
	Institutional Nonpublic	332.8	6%
	Retail	505.8	9%
Tax-exempt	Institutional	14.7	0%
	Retail	103.8	2%
Government & Treasury	Government	2,961.0	52%
	Treasury	1,474.4	26%
Total	Total	5,704.3	100%

Source: Form N-MFP

b. Money Market Fund Investors

Several features of money market funds can create an incentive for their investors to redeem shares heavily in periods of market stress. As in the Proposing Release, we consider these factors below, as well as the adverse impacts that can result from such heavy redemptions out of money market funds. Moreover, this section provides updated information about trends in the money market fund sector in light of the recent banking stress of 2023.

As discussed in the Proposing Release,⁵³⁸ money market fund investors have varying investment goals and risk tolerances. Many investors use money market funds for principal preservation and as a cash management tool. Such investors may be risk averse and averse to losing access to liquidity for many reasons, including general risk tolerance, legal or investment policy restrictions, or short-term cash needs. These overarching considerations may create incentives for money market fund investors to redeem – incentives that may persist regardless of

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See, e.g., 87 FR 7289.

market conditions and even if the other dilution-related incentives discussed below are addressed by the final amendments.

The desire to avoid loss and access to liquidity may cause investors to redeem from certain money market funds in times of stress. For example, heavy redemptions from prime money market funds and subscriptions in government money market funds during the 2008 financial crisis pointed to a flight to quality, given that most of the assets held by government money market funds have a lower default risk than the assets of prime money market funds.⁵³⁹ As another example, during peak market stress in March 2020, investor redemptions may have been driven by liquidity considerations, among other things.

In addition, under the baseline, as long as investors consider their money market investments as relatively liquid and low risk, the possibility that a fund may impose gates or fees when a fund's weekly liquid assets fall below 30% under rule 2a-7 may contribute to the risk of triggering runs, particularly from institutional investors that commonly monitor their funds' weekly liquid asset levels.⁵⁴⁰ As discussed above, some research suggests that, during peak market volatility in March 2020, institutional prime money market fund outflows accelerated as funds' weekly liquid assets went closer to the 30% threshold.⁵⁴¹ In order to avoid approaching or breaching the 30% weekly liquid asset threshold for the possible imposition of redemption gates, money market fund managers may also choose to sell less liquid portfolio securities during times of stress.⁵⁴²

⁵³⁹ *Id.*

⁵⁴⁰ *Id.*

⁵⁴¹ See, e.g., Lei Li, et al., *Liquidity Restrictions, Runs, and Central Bank Interventions: Evidence From Money Market Funds*, 34 Rev. Fin. Stud. 5402, 5402-5437 (2021). See also, e.g., Morgan Stanley Comment Letter; ICI Comment Letter; Northern Trust Comment Letter; Fidelity Comment Letter.

⁵⁴² Some commenters indicated that, on aggregate, prime money market funds pulled back little from commercial paper markets as they were largely unable to resell commercial paper and CDs to issuing banks and such securities lack a liquid secondary market. See, e.g., ICI Report, *Experiences of US Money Market Funds During the Covid-19 Crisis* (Nov. 2020) ("ICI MMF Report"), available at <https://www.sec.gov/comments/credit-market-interconnectedness/cll10-8026117-225527.pdf>.

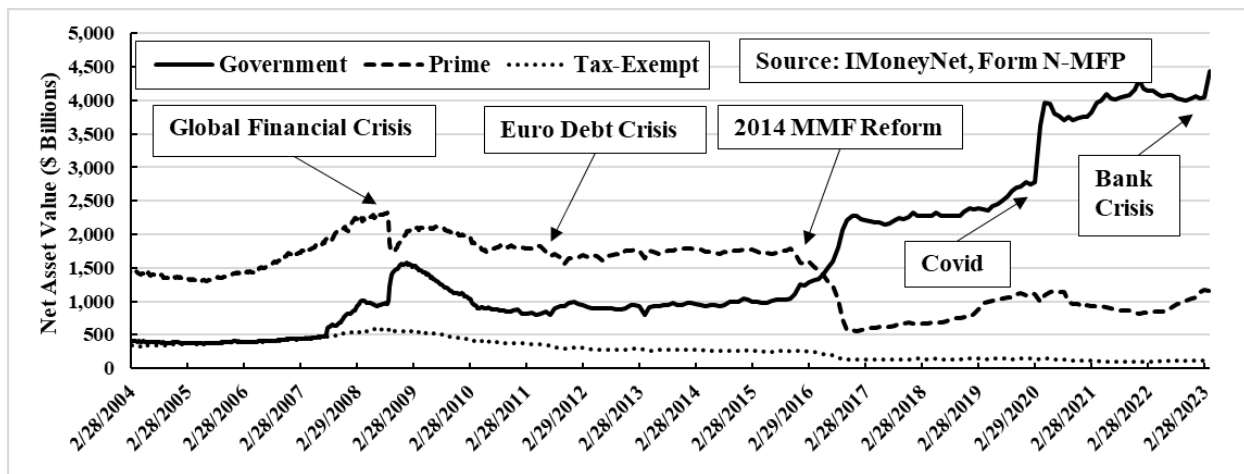
Finally, investors in different types of money market funds may behave differently under stress, and fund portfolios may interact with investor behavior to impact systemic run risk. As discussed in section I.B, institutional fund investors may monitor economic developments more closely than retail investors and may be more prone to running in times of market stress. In addition, prime funds tend to invest in riskier securities that may suffer losses in crises. For instance, prime funds held Lehman Brothers debt when it defaulted in 2008 and had exposure to Eurozone banks in 2011.⁵⁴³ Moreover, during both the global financial crisis of 2008 and the market dislocation of 2020, prime funds held commercial paper, the market for which froze.⁵⁴⁴ Tax-exempt money market funds may also experience redemption pressures in times of market stress. Government money market funds, in contrast, tend to have counter-cyclical flows. Specifically, during times of market turmoil and volatility, investors – particularly institutional investors – tend to shift their investments to government money market funds.⁵⁴⁵ These money market funds offer investments with high credit quality and liquidity, as well as an explicit guarantee for certain government securities (*e.g.*, Treasuries) and a perceived implicit guarantee for others (*e.g.*, Federal Home Loan Bank securities). As shown below, these funds experienced inflows during the global financial crisis of 2008, Euro debt crisis of 2011, Covid-19 pandemic of 2020 and the bank crisis in 2023.

Figure 1: Trends in Net Asset Values of Different Types of Money Market Funds.

⁵⁴³ See, *e.g.*, Response to Questions Posed by Commissioners, Aguilar, Paredes, and Gallagher, Division of Risk, Strategy, and Financial Innovation, U.S. Securities and Exchange Commission, Nov. 30, 2012, available at <https://www.sec.gov/news/studies/2012/money-market-funds-memo-2012.pdf>.

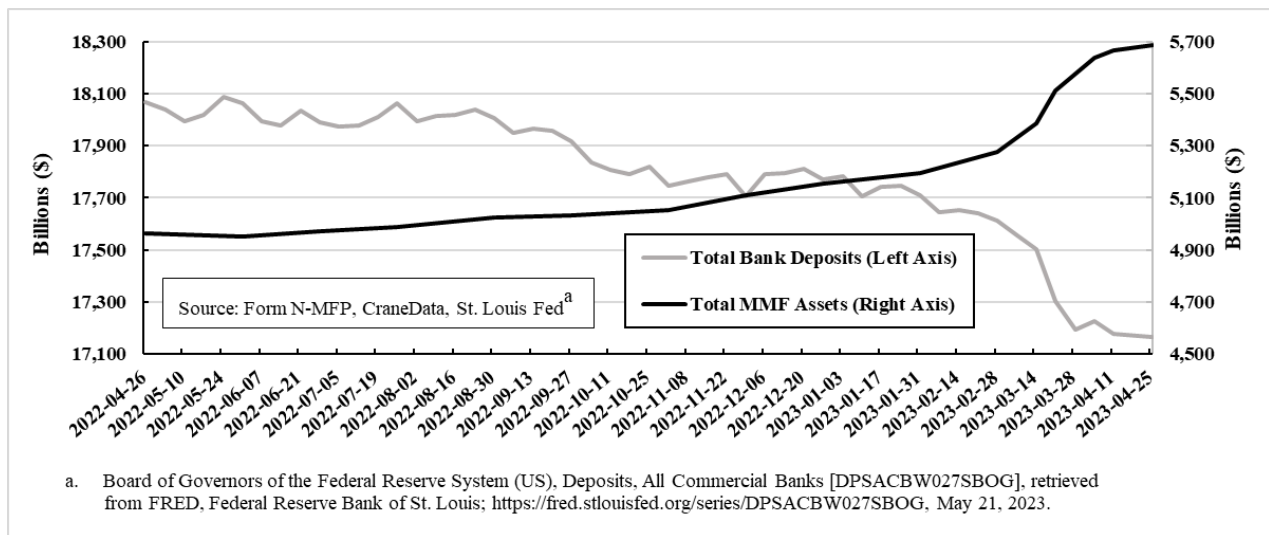
⁵⁴⁴ See, *e.g.*, PRESIDENT’S WORKING GRP. ON FIN. MKTS., OVERVIEW OF RECENT EVENTS AND POTENTIAL REFORM OPTIONS FOR MONEY MARKET FUNDS (2020), available at <https://home.treasury.gov/system/files/136/PWG-MMF-report-final-Dec-2020.pdf>.

⁵⁴⁵ *Id.*



Most recently, the money market fund sector experienced significant inflows during stress in the banking sector between February and April of 2023. For example, between February 1 and March 15, 2023, \$201 billion in bank deposits left the banking sector and \$191 billion flowed into money market funds. The rate at which deposits left the banking sector and flowed into the money market fund sector accelerated in March: between March 1 and April 5, 2023, \$362 billion flowed into money market funds, primarily into Treasury retail (\$54 billion), Treasury institutional (\$122 billion), government agency institutional (\$161 billion), and government agency retail (\$41 billion) funds. To the degree that some of the same market participants may allocate across asset classes, there may be spillovers in run risk between money market funds and the banking system, which may enhance the importance of mitigating run risk in money market funds.

Figure 2: Trends in Total Bank Deposits and Money Market Fund Assets during the Banking Stress. of 2023.



c. Liquidity Externalities and Dilution Costs

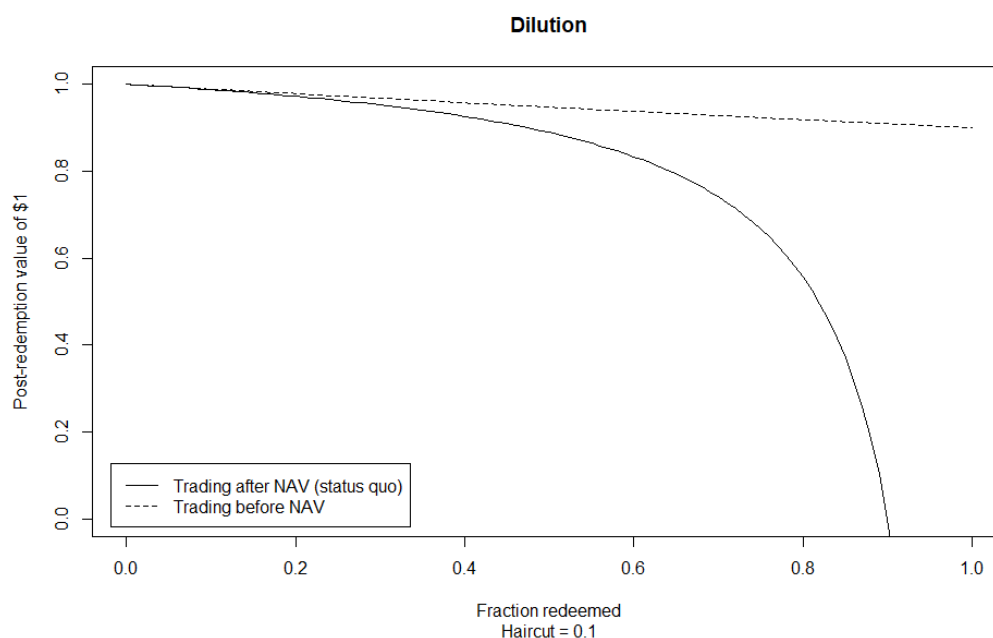
Money market fund investors can incur dilution costs. Specifically, the value of shares held by investors staying in the fund may be diluted if other fund investors transact at a NAV that does not fully reflect the ex post realized costs of the fund's trading induced by fund flows. Shareholders in floating NAV and stable NAV funds may bear dilution costs in different forms. In floating NAV funds, dilution is reflected in the NAV received by remaining shareholders. In stable NAV funds, dilution costs can accrue until the fund's shadow price declines below \$0.995, which may result in the fund breaking the buck and re-pricing its shares below \$1.00. Fund sponsors can also choose to absorb some or all of the dilution costs for reputational reasons but are not obligated to do so. In both types of funds, redemptions can deplete liquidity, increasing the potential for future dilution.

Several factors can contribute to the dilution of investors' interests in money market funds. First, trading costs can lead to dilution. Trading activity and other changes in portfolio holdings associated with meeting redemptions may impose costs, including trading costs and costs of depleting a fund's daily or weekly liquid assets. If these costs are realized prior to the time the fund strikes the NAV, they are distributed across both transacting and non-transacting investors. However, if these costs are realized after NAV strike, they are borne solely by non-transacting shareholders that remain in the fund. For low levels of net redemptions or

subscriptions, the difference between the two scenarios for non-transacting shareholders is low; however, for large net redemptions, the difference in dilution costs borne by non-transacting shareholders can be stark.

Using a stylized example, Figure 3 compares the dilution attributed to trading costs that occurs when a fund trades to meet redemptions after NAV is struck (as is currently the case in the U.S.) with the dilution attributed to trading costs that occurs if a fund is able to trade to accommodate investor redemptions/subscriptions prior to the NAV strike (dotted straight line). This stylized example assumes that a fund holds a single asset whose value is constant, but liquidating the asset incurs a spread/haircut of 10%. The haircut assumption in this stylized example is used purely for illustrative purposes; haircuts on assets in money market funds tend to be much smaller. However, this example demonstrates that larger redemptions can contribute nonlinearly to higher dilution for remaining shareholders when a fund trades after the NAV is struck compared to a scenario in which the fund trades before the NAV is struck.⁵⁴⁶

Figure 3: Dilution Effects of Different Trading Timelines over 1 Day.



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To the degree that some funds may determine their NAV using holdings as of the prior trading day, such practices may also exacerbate dilution. In Figure 3, if funds strike their NAV using current trading day holdings, the dotted line would not be decreasing.

Second, stale prices could contribute to dilution, especially during times of market stress. Some assets that money market funds hold may become illiquid and stop trading during times of market stress.⁵⁴⁷ In such events, the only available prices for these assets are prices realized during pre-stress market conditions, *i.e.*, stale prices. If a floating NAV fund's NAV on a given date is based on stale prices, net redemptions at that NAV can dilute non-transacting fund shareholders when assets are eventually sold at prices that reflect their true value. Since funds with a stable NAV have a fixed share price at \$1, stale prices only affect the shadow price per share and the probability that a fund breaks the buck and potentially leads to sponsor support. The stale pricing phenomenon has been documented in fixed income funds⁵⁴⁸ and not specifically in money market funds. However, money market funds hold significant amounts of commercial paper, certificates of deposit, and other assets that do not have an active and robust secondary market, making them similarly opaque and difficult to accurately price, especially during times of market stress.

Knowing that these and other factors⁵⁴⁹ may contribute to dilution, money market fund investors may have an incentive to redeem quickly in times of stress to avoid realizing potential dilution, an effect exacerbated if they believe other investors will redeem.⁵⁵⁰ Some research in a parallel open end fund setting suggests that liquidity externalities may create a “first-mover

⁵⁴⁷ See, *e.g.*, ICI MMF Report, *supra* note 542.

⁵⁴⁸ See, *e.g.*, Jaewon Choi, et al., *Sitting Bucks: Stale Pricing in Fixed Income Funds*, 145 J. Fin. Econ. 296, 296-317 (Aug. 2022).

⁵⁴⁹ For example, market risk may contribute to dilution costs. If a fund redeems investors at a given NAV, but must raise funds to meet those redemptions on a subsequent trading day during which the value of the fund's holdings declines significantly, non-transacting shareholders will be diluted. Conversely, non-transacting money market fund investors can benefit if assets are sold at a price higher than NAV. While the value of the fund's holdings can go both up and down, such market risk amplifies the risk fund shareholders would otherwise experience. However, since true market prices may be very difficult to forecast, the degree to which such dilution contributes to the first-mover advantage is unclear.

⁵⁵⁰ Run dynamics in banking contexts have been subject of extensive research. See, *e.g.*, Douglas Diamond & Philip Dybvig, *Bank Runs, Deposit Insurance and Liquidity*, J. Pol. Econ. 401, 401-419 (1983). However, we recognize that this and related bank run models may have less applicability for the money market fund context due to differences between banks and money market funds in, among others, the amount of maturity, liquidity, and credit risk transformation, leverage, and transparency about portfolios. See, *e.g.*, Federated Hermes 11/22 Comment Letter.

advantage” that may lead to cascading anticipatory redemptions akin to traditional bank runs.⁵⁵¹

There is a dearth of academic research about the degree to which dilution costs alone may trigger money market fund runs. In addition, theoretical models of such first-mover advantage typically rely on some exogenous mechanism to generate initial redemptions from funds.⁵⁵² While stale NAV and trading costs can create incentives for early redemptions, redemptions also occur for reasons that are not strategic, such as a desire to rebalance portfolios and investors’ immediate need for liquidity.

Regardless of the reason for a fund experiencing net redemptions on any given day, such redemptions impose a cost on investors remaining in the fund in the absence of measures to take trading costs into account. In addition, since money market funds can trade portfolio holdings to meet redemptions or subscriptions, money market fund liquidity management can both dampen and magnify disruptions in underlying securities markets.

In addition, trends in composition of money market fund portfolios, NAV and price volatility, as well as liquidity management practices of money market funds form a part of the baseline against which we are assessing the effects of the final rule. A detailed quantitative analysis of these issues can be found in the Proposing Release.⁵⁵³

⁵⁵¹ This research generally models an exogenous response to negative fund returns and not trading costs. However, these results may extend to trading costs to the degree that cost based dilution may reduce subsequent fund returns, which would trigger runs in these models. *See, e.g.,* Qi Chen, et al., *Payoff Complementarities and Financial Fragility: Evidence From Mutual Fund Outflows*, 97 J.Fin.Econ. 239, 239-262 (2010). *See also* Itay Goldstein, et al., *Investor Flows and Fragility in Corporate Bond Funds*, 126 J Fin. Econ. 592, 592-613 (2017). *See also* Stephen Morris, et al., *Redemption Risk and Cash Hoarding by Asset Managers*, J. Monetary Econ. 71, 71-87 (2017). *See also* Yao Zeng, *A Dynamic Theory of Mutual Funds and Liquidity Management* (ESRB working paper no. 2017/42, Apr. 2017), *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3723389 (retrieved from SSRN Elsevier database). *See also* Yiming Ma, et al., *Mutual Fund Liquidity Transformation and Reverse Flight to Liquidity*, 35 Rev.Fin.Stud. 4674, 4674-4711 (2022). *See also* Yiming Ma, et al., *Bank Debt Versus Mutual Fund Equity in Liquidity Provision* (Jacobs Levy Equity Mgmt. Ctr. Quantitative Fin. Rsch. Paper, Dec. 2019, last revised Dec. 16, 2022), *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3489673 (retrieved from SSRN Elsevier database).

⁵⁵² For example, one model assumes that investors redeem from funds following poor performance. *See* Qi Chen, et al., *Payoff Complementarities and Financial Fragility: Evidence From Mutual Fund Outflows*, 97 J. Fin. Econ. 239, 239-262 (2010).

⁵⁵³ *See* 87 FR 7292 through 7298.

Finally, as a baseline matter, money market funds in the U.S. have not experienced persistent negative yields. Thus, stable NAV funds have not implemented reverse distribution mechanisms or conversions to a floating NAV in response to negative yields. However, as discussed in section II, the Commission has received comment that reverse distribution mechanisms may be a more cost efficient measure for funds to deploy in the event of persistent negative yields given their baseline fund management practices.⁵⁵⁴ These and related economic effects are discussed in greater detail in section IV.C.5.

d. Regulatory Baseline

The Commission is assessing the economic effects of the final amendments relative to a regulatory baseline, which reflects rules and forms imposed on affected money market funds currently in effect. Specifically, for the purposes of this economic analysis, the regulatory baseline includes, among others, rule 2a-7, rule 22c-2, and rule 22e-3, and existing Forms PF, N-MFP, N-CR, and N-1A, as discussed in greater detail in section II.

2. Large Liquidity Funds and Form PF

Some of the final amendments impact the reporting by investment advisers on Form PF regarding private liquidity funds. The Commission adopted Form PF in 2011, with additional amendments made to section 3 along with certain money market fund reforms in 2014. Form PF complements the basic information about private fund advisers and private funds reported on Form ADV.⁵⁵⁵ Unlike Form ADV, Form PF is not an investor-facing disclosure form.

⁵⁵⁴ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Allspring Funds Comment Letter; Fidelity; BNY Mellon Comment Letter; State Street Comment Letter; Sen. Toomey Comment Letter; Americans for Tax Reform Comment Letter; Dechert Comment Letter; CCMR Comment Letter; IDC Comment Letter.

⁵⁵⁵ Investment advisers to private funds report on Form ADV general information about private funds that they advise. This includes basic organizational, operational information, and information about the fund's key service providers. Information on Form ADV is available to the public through the Investment Adviser Public Disclosure System, which allows the public to access the most recent Form ADV filing made by an investment adviser. See, e.g., Form ADV, available at <https://www.investor.gov/introductioninvesting/investing-basics/glossary/form-adv>. See also Investment Adviser Public Disclosure, available at <https://adviserinfo.sec.gov/>. Some private fund advisers that are required to report on Form ADV are not required to file Form PF (for example, exempt reporting advisers). Other advisers are required to file Form PF and are not required to file Form ADV (for example,

Information that private fund advisers report on Form PF is provided to regulators on a confidential basis and is nonpublic.⁵⁵⁶ The purpose of Form PF is to provide the Commission and FSOC with data that regulators can deploy in their regulatory and oversight programs directed at assessing and managing systemic risk and protecting investors both in the private fund industry and in the U.S. financial markets more broadly.

Currently, liquidity fund advisers with between \$150 million and \$1 billion in assets file Form PF annually, which contains general information about funds they manage. Large liquidity fund advisers with at least \$1 billion in combined regulatory assets under management attributable to liquidity funds and money market funds are required to file Form PF quarterly and provide more detailed data on the liquidity funds they manage (section 3 of Form PF).⁵⁵⁷ In the third quarter of 2022, there were 79 liquidity funds reported on Form PF with \$336 billion in gross assets under management.⁵⁵⁸ Of those, 51 funds were large liquidity funds with \$331 billion in gross assets, which represented approximately 99 percent of the reported liquidity fund assets.⁵⁵⁹

commodity pools that are not private funds). Based on the staff review of Form ADV filings and the Private Fund Statistics, less than 10% of funds reported on Form ADV but not on Form PF in 2020.

⁵⁵⁶ Commission staff publish quarterly reports of aggregated and anonymized data regarding private funds on the Commission's website. *See* Private Fund Statistics, Securities and Exchange Commission: Division of Investment Management, *available at* <https://www.sec.gov/divisions/investment/private-funds-statistics.shtml>.

⁵⁵⁷ Item A of section 3 of Form PF collects certain information for each liquidity fund the adviser manages, such as information regarding the fund's portfolio valuation methodology. This item also requires information regarding whether the fund, as a matter of policy, is managed in compliance with certain provisions of rule 2a-7 under the Investment Company Act. Item B requires the adviser to report information regarding the fund's assets, while Item C requires the adviser to report information regarding the fund's borrowings. Finally, Item D asks for certain information regarding the fund's investors, including the concentration of the fund's investor base and the liquidity of its ownership interests. *See* Form PF.

⁵⁵⁸ *See* Division of Investment Management, Private Fund Statistics (Apr. 6, 2023), *available at* <https://www.sec.gov/divisions/investment/private-funds-statistics.shtml>.

⁵⁵⁹ *Id.*

Liquidity funds are a relatively small⁵⁶⁰ category of private funds, that plays a similar role to money funds.⁵⁶¹ Liquidity funds follow similar investment strategies as money market funds, but are not registered as investment companies under the Act.⁵⁶² Similar to money market funds, liquidity funds are managed with the goal of maintaining a stable net asset value or minimizing principal volatility for investors.⁵⁶³ These funds typically achieve these goals by investing in high-quality, short-term debt securities, such as Treasury bills, repurchase agreements, or commercial paper, that fluctuate very little in value under normal market conditions.⁵⁶⁴ Also, similar to money market funds, liquidity funds are sensitive to market conditions and may be exposed to losses from certain of their holdings when the markets in which the funds invest are under stress. Compared to money market funds, liquidity funds may take on greater risks and, as a result, may be more sensitive to market stress, as they are not required to comply with the risk-limiting conditions of rule 2a-7, which place restrictions on the maturity, diversification, credit quality, and liquidity of money market fund investments.⁵⁶⁵

3. Other Affected Entities

As discussed above, some of the final amendments may indirectly affect a large group of intermediaries and service providers. Specifically, as a result of the liquidity fee requirement, certain money market funds may seek to receive more timely flow information and streamline the assessment of fees to end investors down the intermediary chain. As discussed in greater detail below, this may affect all market participants sending orders to relevant money market funds, including broker-dealers, registered investment advisers, retirement plan record-keepers

⁵⁶⁰ According to the Private Fund Statistics Report, in the third quarter of 2023, liquidity fund assets accounted for 1.5% of the gross asset value (\$0.3/\$19.9 trillion) and 2.2% of the NAV (\$0.3/\$13.8 trillion) of all private funds reported on Form PF.

⁵⁶¹ See Daniel Hiltgen, *Private Liquidity Funds: Characteristics and Risk Indicators*, DERA White Paper (Jan. 2017) (“Hiltgen Paper”), available at <https://www.sec.gov/files/2017-03/Liquidity%20Fund%20Study.pdf>.

⁵⁶² *Id.*

⁵⁶³ See section II above.

⁵⁶⁴ See Hiltgen Paper.

⁵⁶⁵ See section II above.

and administrators, banks, other registered investment companies, and transfer agents that receive flows directly. In addition, amendments related to stable NAV money market funds in the event of a negative rate environment may affect intermediaries sending flows to such funds.

In addition, the final amendments may indirectly affect issuers of securities that are held by affected funds, including issuers of certificates of deposit and commercial paper, and municipalities. While nothing in the final amendments imposes any requirements on issuers, to the degree that the final amendments may influence affected funds' willingness to hold such securities, they may influence the ability of such issuers to raise debt financing, the terms of such financing, or the type of investors that provide debt financing to such issuers. These and other effects are discussed in greater detail in sections IV.C and IV.E.

C. Costs and Benefits of the Final Amendments

1. Removal of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates

a. Benefits

The final amendments remove the tie between money market funds' weekly liquid assets and the discretionary imposition of liquidity fees, as well as eliminate gate provisions from rule 2a-7. In addition, the final rule removes the tie between the 10% weekly liquid asset threshold and the imposition of default liquidity fees. Commenters generally supported these proposed revisions.⁵⁶⁶

These amendments may benefit money market fund investors by reducing liquidity costs borne by investors remaining in the fund, and money market funds and their investors by reducing the risk of runs, especially during times of liquidity stress.

⁵⁶⁶ See, e.g., Americans for Tax Reform Comment Letter; Profs. Cecchetti and Schoenholtz Comment Letter; CCMR Comment Letter; Federated Hermes I Comment Letter; Western Asset Comment Letter; Morgan Stanley Comment Letter; Vanguard Comment Letter; CFA Comment Letter; Fidelity Comment Letter; SIFMA Comment Letter; T.Rowe Price Comment Letter.

First, these amendments may benefit money market fund investors. Money market fund redemptions can impose liquidity externalities on shareholders remaining in the fund, as discussed in section IV.B.1. The possibility of a redemption gate or a redemption fee when linked to a weekly liquid asset threshold can magnify those incentives and externalities. The Commission continues to believe that the weekly liquid asset triggers for the possible imposition of redemption fees or gates create incentives for investors to redeem first, at the expense of investors remaining in the fund who experience further dilution during the gating period, and for fund managers to use less liquid assets to meet redemptions which imposes liquidity costs on non-transacting investors. Thus, the removal of the tie between the weekly liquid asset trigger and the possible imposition of liquidity fees as well as the elimination of redemption gates outside of liquidation may reduce the liquidity costs borne by investors remaining in the fund. This aspect of the final amendments may increase the attractiveness of money market funds as a low risk cash management tool and sweep investor account to risk averse investors.

Second, these amendments may benefit money market funds by reducing the risk of runs. As discussed in the introduction, money market funds are subject to daily redemptions and invest in short-term debt instruments that are not perfectly liquid, which renders them susceptible to a first-mover advantage in investor redemptions.⁵⁶⁷ Under the current baseline, money market funds may impose redemption fees or gates if their weekly liquid assets are below 30% of their total assets. Thus, because weekly liquid assets tend to be persistent over time, as funds approach the 30% threshold, investors seeking to avoid a redemption gate or fee are incentivized to redeem before other redemptions further deplete a fund's liquid assets.⁵⁶⁸ For example, we have received

⁵⁶⁷ See, e.g., Lawrence Schmidt et al., *Runs on Money Market Mutual Funds*, 106 Am. Econ.Rev. 2625, 2625–57 (2016). Run dynamics in funds have been explored in a large body of finance research, including, for example: Yao Zeng, *A Dynamic Theory of Mutual Funds and Liquidity Management* (ESRB working paper no. 2017/42, Apr. 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3723389 (retrieved from SSRN Elsevier database). See also Qi Chen et al., *Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund Outflows*, 97 J.Fin.Econ. 239, 239–262 (2010).

⁵⁶⁸ See, e.g., Fidelity Comment Letter; Northern Trust Comment Letter; IIF Comment Letter; ICI Comment Letter.

comment that daily and weekly liquid asset balances became a closely watched metric for institutional investors worried about preserving access to their invested funds, and that, for a large majority of institutional investors that had reduced their investments in prime money market funds in March 2020, gates were an important factor in deciding to redeem.⁵⁶⁹ The final amendments are expected to reduce such incentives to redeem, especially in times of stress.⁵⁷⁰ Moreover, as discussed in section II.A.1, the link between the 30% weekly liquid asset threshold and the possibility of the imposition of fees or gates did not serve as a useful liquidity management tool in March 2020 (no fund imposed fees or gates). However, available evidence suggests that such a link may have incentivized funds to preserve their weekly liquid assets instead of using them to absorb redemptions, in order to stay above the 30% threshold.⁵⁷¹ The removal of redemption gates and the tie between weekly liquid assets and liquidity fees reduces disincentives for funds to absorb large redemptions out of liquid assets.

As a result, the removal of redemption gates and the tie between weekly liquid assets and the discretionary and default imposition of liquidity fees may better enable funds to use their daily and weekly liquid assets to meet redemptions in times of stress without giving rise to risk of runs.⁵⁷² This benefit may be strongest for money market funds that have weekly liquid assets close to the minimum threshold during times of liquidity stress, as they are currently most susceptible to runs. Moreover, money market fund investors would no longer face the possibility of the imposition of gates outside of liquidations, enhancing the attractiveness of money market funds as a highly liquid investment product.

Overall, we believe that the final rule, including the liquidity fee framework and the raised liquidity requirements, will provide more efficient tools for managing liquidity risk than

⁵⁶⁹ See, e.g., CFA Comment Letter.

⁵⁷⁰ See, e.g., Americans for Tax Reform Comment Letter; Profs. Cecchetti and Schoenholtz Comment Letter; CFA Comment Letter.

⁵⁷¹ See, e.g., *supra* note 56.

⁵⁷² See, e.g., Federated Hermes Comment Letter I.

the current baseline approach tying the potential imposition of fees to weekly liquid asset thresholds while reducing incentives for strategic redemptions, as discussed in greater detail in the sections that follow.

b. Costs

As discussed in section II.A, the final amendments will not only remove the tie between fund weekly liquid assets and the possibility of gating and fees, but will also eliminate gate provisions from rule 2a-7. As a result, money market funds will only be able to impose gates in the event of liquidation under rule 22e-3. To the degree that temporary redemption gates may serve as a useful redemption management tool during times of stress, the amendment would reduce the scope of tools available to money market funds to manage their liquidity risk in times of stress. For example, some commenters suggested that fund boards should have the ability to impose gates at their discretion.⁵⁷³ One of these commenters indicated that retaining a board's ability to implement either a gate in its discretion could provide directors with additional liquidity management tools in times of market stress.⁵⁷⁴ Another of these commenters suggested that boards should be given maximum discretion as to the fund's design and operation, including the discretion to implement redemption gates.⁵⁷⁵

Four factors may mitigate these economic costs. First, no money market fund imposed a gate under the rule during the market stress of 2020, and investors exhibited anticipatory redemptions when funds approached the 30% weekly liquid threshold for the potential imposition of gates. In light of these factors, money market funds may be unlikely to impose redemption gates outside of fund liquidation, even if we retained a redemption gate provision in rule 2a-7. As discussed in section II.A, the possibility that a money market fund would impose

⁵⁷³ See, e.g., Federated Hermes Comment Letter I; Federated Hermes Board Comment Letter; Cato Inst. Comment Letter.

⁵⁷⁴ See, e.g., Federated Hermes Comment Letter I. As discussed in section II and in section IV.C.4 below, the final rule would include a discretionary liquidity fee framework that affected money market funds could employ in times of stress.

⁵⁷⁵ See Cato Inst. Comment Letter.

redemption gates may influence investment and redemption decisions, which could trigger runs.⁵⁷⁶

Second, the final rule includes a liquidity fee framework, encompassing mandatory and discretionary liquidity fees, as discussed in greater detail in section I and section II.B, but an amended framework where the imposition of fees is not tied to weekly liquid assets. The final rule includes both a discretionary fee framework⁵⁷⁷ and a mandatory liquidity fee framework. Mandatory liquidity fees will be tied to a fund's same-day net redemptions, and funds will be able to assess discretionary liquidity fees, as discussed in section II.B. As discussed above, we believe that the final rule will provide more efficient tools for managing liquidity risk than the current baseline approach tying the potential imposition of fees to weekly liquid asset thresholds while reducing incentives for strategic redemptions. Moreover, increases to daily and weekly liquidity thresholds may increase fund liquidity buffers that can be used to manage liquidity costs of redemptions.

Third, money market funds will continue to be able to suspend redemptions under rule 22e-3 in anticipation of fund liquidation. Specifically, a money market fund will be able to suspend redemptions if its weekly liquid assets decline below 10% or, in the case of a government or retail money market fund, if its market-based price has deviated or is likely to deviate from its stable price, and in each case if the board also approves liquidation of the fund.⁵⁷⁸ Thus, money market funds will still have access to a form of gating during large liquidity shocks in connection with a fund liquidation.

Fourth, as a result of the run dynamics described above, the tie between weekly liquid assets and the potential imposition of fees and gates may have contributed to incentives for

⁵⁷⁶ See, e.g., State Street Comment Letter.

⁵⁷⁷ The Commission received comment that liquidity fees are one of the tools that, if fully discretionary, could be very valuable to money market funds in future stressed markets. See, e.g., Federated Hermes Comment Letter I.

⁵⁷⁸ See 17 CFR 270.22e-3.

money market fund managers to preserve their weekly liquid assets during liquidity stress, rather than using them to meet redemptions.⁵⁷⁹ Therefore, the tie between weekly liquid assets and the possibility of fees and gates may magnify liquidity stress because it incentivizes money market funds to sell less-liquid assets with higher liquidity costs rather than absorb redemptions out of liquid assets. Thus, the removal of gates under rule 2a-7 and the tie between weekly liquid asset thresholds and the imposition of liquidity fees may reduce run risk and liquidity externalities in money market funds.

2. Raised Liquidity Requirements

a. Benefits

The final amendments increasing daily and weekly liquid asset requirements to 25% and 50% respectively may reduce run risk in money market funds. Commenters generally supported increasing the minimum daily and weekly liquidity requirements for money market funds, and some commenters supported the final thresholds being adopted.⁵⁸⁰

As discussed in the Proposing Release, early redemptions can deplete a fund's daily or weekly liquid assets, which reduces liquidity of the remainder of the fund's portfolio and increases the risk that a fund may need to sell less-liquid assets into a stressed market. Higher levels of daily and weekly liquid assets in a fund may reduce trading costs and the first-mover advantage during a wave of redemptions, potentially dis-incentivizing runs. When money market funds experience runs, funds with higher daily and weekly liquid assets may experience lower liquidity costs as they may be more likely to be able to use their liquid assets to meet redemptions rather than be forced to sell assets during liquidity stress.⁵⁸¹ In the open-end fund

⁵⁷⁹ See, e.g., Federated Hermes Comment Letter I.

⁵⁸⁰ See, e.g., Fidelity Comment Letter; Schwab Comment Letter; Vanguard Comment Letter; CCMR Comment Letter; Americans for Financial Reform Comment Letter; Better Markets Comment Letter. See also Prof. Hanson *et al.* Comment Letter; Systemic Risk Council Comment Letter (suggesting that the proposed liquidity thresholds may be too low).

⁵⁸¹ See Prime MMFs at the Onset of the Pandemic Report, *supra* note 41, at 4. According to Form N-MFP filings, no prime money market fund reported daily liquid assets declining below the 10% threshold in Mar. 2020.

context, some research shows that fund illiquidity can contribute to run dynamics, as discussed in section IV.B.1.c. Other work shows that less-liquid open-end bond funds suffered more severe outflows during the COVID-19 crisis than liquid funds, and that less-liquid funds experienced redemptions well before more-liquid funds.⁵⁸² Other research shows that runs were more likely in less liquid funds for both U.S. and European institutional prime money market funds.⁵⁸³

A number of commenters indicated that raised liquidity requirements are critical to improving the resilience of money market funds in periods of market stress, as higher amounts of liquidity allow funds to manage through periods of higher redemptions and delay the point at which funds must access the secondary market to generate liquidity.⁵⁸⁴ We continue to believe that increases in minimum liquidity requirements may help funds absorb redemptions and reduce the likelihood that funds need to sell portfolio securities during periods of market stress. This may enhance the resilience of money market funds in times of stress and may reduce the potential effect of redemptions from money market funds on short-term funding markets during times of stress. As discussed in the Proposing Release, there may be varying interpretations of the effects of fund outflows in March 2020 on the prices of assets held by money market funds and, thus, the degree to which the liquidity requirements may reduce the transaction costs and losses money market funds would face when selling portfolio securities into stressed markets. One commenter indicated that the proposal relied on a false assumption that all redemptions should be met using weekly liquid assets.⁵⁸⁵ While funds may sell other securities to meet redemptions during times of stress, selling portfolio securities into stressed markets is not only costly, but also might not always be feasible during significant stress events that impair the

⁵⁸² See Antonio Falato et al., *Financial Fragility in the COVID-19 Crisis: The Case of Investment Funds in Corporate Bond Markets*, 123 J. Monetary Econ. 35, 35-52 (2021).

⁵⁸³ See Cipriani, Marco and Gabriele La Spada, *Sophisticated and Unsophisticated Runs*. FRB of New York Staff Report No. 956 (2020). See also Anadu, Kenekwue et al., *The Money Market Mutual Fund Liquidity Facility*, FRB of New York Staff Report No. 980. (2021).

⁵⁸⁴ See, e.g., Systemic Risk Council Comment Letter; Fidelity Comment Letter; Schwab Comment Letter; Vanguard Comment Letter.

⁵⁸⁵ See Federated Hermes Comment Letter I.

ability of dealers to supply such liquidity.⁵⁸⁶ The Commission continues to believe that increased liquidity requirements may enhance the ability of funds to meet large redemptions and reduce the dilution of remaining fund shareholders which will protect investors, particularly in times of stress.

Some commenters indicated that increases in the weekly liquid asset threshold would not necessarily result in enhanced money market fund liquidity because fund managers would treat a fund's liquid assets as a regulatory minimum and not use them to fulfill redemptions.⁵⁸⁷ Funds may, indeed, choose between drawing down on daily or weekly liquid assets and selling less liquid assets in distressed markets to meet redemptions. As discussed above, the final rule removes the tie between weekly liquid assets and the potential imposition of redemption fees and gates. As discussed in the Proposing Release, before the introduction of fees and gates in the 2014 amendments, the only consequence to a money market fund of having the percentage of its weekly liquid assets fall below the 30% threshold was that the fund could not acquire any security other than a weekly liquid asset until its investments were above the 30% threshold. As a result, funds were more comfortable using their weekly liquid assets and dropping below the 30% threshold.⁵⁸⁸ For example, at the peak of the Eurozone sovereign crises in the summer of 2011 the lowest reported weekly liquid asset value was approximately 5%.⁵⁸⁹ In combination with the elimination of the tie between weekly liquid assets and potential imposition of liquidity fees as well as the elimination of redemption gates, the liquidity requirements may similarly increase the reliance of money market funds on daily and weekly liquid assets in meeting redemptions.

⁵⁸⁶ See, e.g., ICI Comment Letter, BlackRock Comment Letter.

⁵⁸⁷ See, e.g., SIFMA AMG Comment Letter; BlackRock Comment Letter.

⁵⁸⁸ See, e.g., Federated Hermes Comment Letter I (citing to ICI data and stating that “even before the linkage was introduced, funds utilized their weekly liquid assets as necessary and then in accordance with the rule procured only weekly liquid assets until the regulatory thresholds were once again met”).

⁵⁸⁹ 87 FR 7300.

The Commission received comment that a prescriptive regulatory minimum liquidity mandate may offer few benefits because funds have a current obligation to hold sufficient liquidity to meet reasonably foreseeable shareholder redemptions and that properly considered know your customer requirements (*e.g.*, investor type and concentration) are adequate.⁵⁹⁰ As discussed in section II.C.1, this current obligation may not be sufficient, since investors have unpredictable cash flow needs that are exacerbated in stress events, markets can rapidly and unforeseeably become illiquid during stress events, and requiring an appropriate level of liquidity at all times may be more effective than waiting until the stress event.

The Commission has also received comments that the removal of the tie between weekly liquid assets and gates and fees would have been sufficient, and that other amendments are unnecessary.⁵⁹¹ In general, investors may have cash needs that can be hard to predict for investors, and even more so for fund managers.⁵⁹² Moreover, we understand that large scale redemptions akin to those experienced by some funds in March 2020 are rare, and estimating the risk of such rare and large scale redemptions is inherently difficult. Finally, because dilution costs are borne by remaining investors and not money market funds, funds do not bear the cost of liquidity externalities that money market fund liquidity management practices may impose on market participants transacting in the same asset classes. We continue to believe that there are benefits to increased liquidity requirements. As discussed in greater detail below, we also believe that the final liquidity fee framework would give rise to additional benefits by reducing liquidity externalities of redemptions that can contribute to run incentives and by seeking to ensure that the costs stemming from redemptions in stressed market conditions are more fairly allocated to redeeming investors.

⁵⁹⁰ See, *e.g.*, Federated Hermes Comment Letter I; Sen. Toomey Comment Letter.

⁵⁹¹ See, *e.g.*, Federated Hermes Comment Letter I.

⁵⁹² See HSBC Comment Letter.

We acknowledge that, as discussed in the Proposing Release, the anticipated benefits of the final rule may be partly reduced to the extent that money market funds already voluntarily hold daily and weekly liquid assets in excess of the regulatory minimum thresholds due to other regulatory obligations or prevailing market conditions. For example, the asset weighted average daily and weekly liquid assets for publicly offered institutional prime money market funds between October 2016 and February 2020 was 33% and 48% respectively.⁵⁹³ After the peak volatility in March 2020, money market funds generally increased their daily and weekly liquidity, initially to meet further redemptions and subsequently to take advantage of rising interest rates since March 2022. Consequently, the asset weighted average daily and weekly liquid assets for publicly offered institutional prime money market funds rose to 43% and 56% respectively by March 2023.⁵⁹⁴ Additionally, the distributions of daily and weekly liquid assets have different amount of skewness, with approximately 45% of publicly offered institutional prime funds holding below average (43%) in daily liquid assets and 40% of funds holding below average (less than 56%) in weekly liquid assets. As a result, fewer prime funds may be affected by the higher daily liquid asset threshold than the higher weekly liquid asset threshold. Specifically, as of March 31, 2023, approximately 8% of all prime funds were below the 25% daily liquid asset threshold and approximately 20% of all prime funds were below the 50% weekly liquid asset threshold. Out of all public institutional prime funds, 8% were below the final daily liquid asset threshold and 18% were below the weekly liquid asset threshold. This may reduce both costs and benefits of the final amendments against the current regulatory baseline.

⁵⁹³ Averages were calculated by dividing the aggregate amount of daily (weekly) liquid assets from all funds by the aggregated amount of assets from all funds.

⁵⁹⁴ According to one commenter, between 2010 and 2021, institutional prime money market funds held, on average, 45% in weekly liquid assets, and retail prime money market funds held, on average, 42% in weekly liquid assets. *See* ICI Comment Letter.

We have received comment that the proposed increases in liquidity requirements rely on false assumptions, including the assumption that failure of a single money market fund to ensure proper liquidity will lead to a run impacting all money market funds because transparency about liquidity levels of different funds can prevent or limit contagion.⁵⁹⁵ Daily and weekly liquid assets of money market funds are, indeed, publicly disclosed under the current baseline, and this baseline reduces spillovers of run risk on more liquid money market funds. However, in the event of a run on a money market fund with lower liquidity buffers, investors may also optimally seek to redeem out of funds that are similar to the fund experiencing a run (in their portfolio exposures, liquidity characteristics, or institutional clientele).⁵⁹⁶ Higher liquidity requirements may reduce such spillovers of run risk across funds.

To the degree that raised liquidity requirements reduce run risk in money market funds, they may enhance the resilience of affected funds and reduce the risk that money market funds rely on government backstops. Moreover, this may benefit investors to the degree that increasing the liquidity of money market fund portfolios would allow funds to meet large redemptions from liquidity buffers more easily. For example, after the March 2020 market dislocation, some prime money market funds voluntarily shifted their portfolios by moving out of longer maturity commercial paper and certificates of deposit in favor of more liquid Treasuries, allowing them to meet any future redemptions better. Raising liquidity thresholds may have a similar benefit.

The magnitude of the above economic benefits is likely to depend on the way in which money market funds respond to the final amendments. Specifically, some affected money market funds (*i.e.*, money market funds with less than 25% in daily and 50% in weekly liquid assets) may react to the final amendments by increasing the maturity of the remainder of their

⁵⁹⁵ See, *e.g.*, Federated Hermes Comment Letter I.

⁵⁹⁶ See Proposing Release, *supra* note 5, at Table 2 and accompanying text (discussing outflows from money market funds with different fund characteristics).

portfolios⁵⁹⁷ (within the constraints on the maturity and weighted average life of the assets they hold), potentially reducing their liquidity to the extent that it is tied to maturity.

b. Costs

The final amendments will impose indirect costs on money market funds, investors, and issuers. Because less liquid assets are more likely to yield higher returns in the form of a liquidity premium,⁵⁹⁸ to the degree that the amendments improve the liquidity of money market fund portfolios, it may lower expected returns of those funds to investors. Thus, an increase in weekly liquid assets may decrease money market fund yields and make them less attractive to some investors⁵⁹⁹ and may reduce entry.⁶⁰⁰ One commenter estimated that the proposed amendments will narrow the spread in yield between prime and government money market funds to less than 10 basis points.⁶⁰¹ We do not agree that this would necessarily be the case. Notably, any changes to such yield spread would vary depending on the degree to which some money market funds may choose to extend the maturities of their assets that do not fall into the weekly liquid asset category⁶⁰² (while staying under the regulatory caps on portfolio weighted average maturity and weighted average life) in response to the amendments, as well as on the prevailing interest rate environment and the steepness of the yield curve that reflects interest rates across maturities.

⁵⁹⁷ See, e.g., Federated Hermes Comment Letter I. Notably, longer maturity of portfolio assets does not always imply lower liquidity. For example, the liquidity stress in 2020 was so severe that commercial paper across a variety of maturities became illiquid.

⁵⁹⁸ See, e.g., Lee, Kuan-Hui, *The World Price of Liquidity Risk*, 99 J.Fin. Econ. 136, 136-161 (2011). See also Acharya, Viral, and Lasse Pedersen, *Asset Pricing with Liquidity Risk*, 77 J. Fin. Econ. 375, 375-410 (2005). See also Lubos Pastor & Robert Stambaugh, *Liquidity Risk and Expected Stock Returns*, 111 J. Polit. Econ. 642, 642-685 (2003).

⁵⁹⁹ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; Federated Hermes Comment Letter I; Dechert Comment Letter; Americans for Tax Reform Comment Letter.

⁶⁰⁰ For example, one commenter that closed prime and tax-exempt money market funds in 2020 asserted that the regulatory burdens, including increased liquidity requirements, make it unlikely that they will reenter the prime money market fund market. See Northern Trust. For a discussion of the potential effects of the final amendments on competition, efficiency, and capital formation, see section IV.E.

⁶⁰¹ See Federated Hermes Comment Letter I.

⁶⁰² *Id.*

Reduced investor demand may lead to a decrease in the size of assets under management of affected money market funds and the wholesale funding liquidity they provide to other market participants. Investors that prefer to use money market funds as a cash management tool, giving them the ability to preserve the value of their investments and receive a small yield, may move out of prime money market funds and into government money market funds which deliver lower yields, but have lower risk to the value of the investment.⁶⁰³ At the same time, investors reaching for yield may move to non-money market fund alternatives, including more opaque or less regulated investment products.⁶⁰⁴ Moreover, to the degree that some investors view money market funds as cash equivalents, this amendment may result in better matching of investors to funds that meet their risk tolerance and yield expectations, mitigating the above costs.

The final amendments may require some affected funds to increase their daily liquid assets or weekly liquid assets. However, as of March 2023, an average institutional prime fund had 54.9% of assets in daily liquid assets and an average retail prime fund had 50.5% of assets in daily liquid assets; similarly, institutional prime funds had an average of 67.9% in weekly liquid assets and retail prime funds averaged 61.5% in weekly liquid assets.⁶⁰⁵ As can be seen from Table 5 below, we understand that many funds are already in compliance or close to compliance with the final liquidity requirements under the current baseline, mitigating some of the above costs (and benefits) of the final amendments.

Table 5: Distribution of Daily Liquid Assets (DLA) and Weekly Liquid Assets (WLA) by Fund Type, as of March 2023.

	Prime Institutional	Prime Retail	Prime Institutional	Prime Retail
%-ile	DLA	DLA	WLA	WLA
Min	20.7%	15.2%	37.5%	34.9%
10th	28.8%	22.1%	43.9%	42.2%
25th	40.1%	30.4%	52.6%	47.4%

⁶⁰³ Government money market funds must invest 99.5% or more of their assets in cash, government securities, and/or repurchase agreements that are collateralized fully.

⁶⁰⁴ See, e.g., Federated Hermes Comment Letter I; ICI Comment Letter; Dechert Comment Letter; CCMR Comment Letter.

⁶⁰⁵ See Money Market Fund Statistics, Division of Investment Management Analytics Office, 4/25/2023, available at <https://www.sec.gov/files/mmf-statistics-2023-03.pdf>. The weighted average values equal the aggregated daily or weekly liquid assets divided by the total assets of the funds.

50th	47.3%	43.9%	58.7%	57.1%
75th	57.2%	50.9%	67.7%	60.3%
90th	90.3%	58.0%	92.3%	72.9%
Max	100.0%	67.5%	100.0%	76.0%

Source: Form N-MFP filings

Nevertheless, to the extent that some funds have to increase their liquidity levels to comply with the final amendments, these amendments may increase the demand of money market funds for liquid assets, such as repos. To the degree that this results in a decline in yield spreads between prime and government money market funds, some investments may flow into government money market funds or, alternatively, banking entities. To the extent that the liquidity in overnight funding markets may flow to banking entities, and through them to leveraged market participants, such as hedge funds, the amendments may reduce the liquidity risk borne by some money market funds, but may result in a concentration of risk taking among leveraged and less regulated market participants. At the same time, investors reaching for yield may flow out of money market funds and into other more speculative vehicles, unregulated and less transparent products.

The final amendments may also impose indirect costs on issuers. Specifically, money market funds are holders of commercial paper and certificates of deposit, as described in the baseline,⁶⁰⁶ and most of the commercial paper they hold is issued by banks, including foreign bank organizations.⁶⁰⁷ Therefore, issuers of commercial paper and certificates of deposit are likely to experience incrementally reduced demand for their securities from money market funds, particularly demand for debt that would fall outside of the weekly liquid assets category,⁶⁰⁸ however any such effects may be mitigated by the factors discussed below. We have received

⁶⁰⁶ To the degree that some money market funds hold significant quantities of commercial paper issued by foreign banks seeking dollar funding, such issuer costs may have a greater effect on foreign issuers.

⁶⁰⁷ See ICI MMF Report, *supra* note 542.

⁶⁰⁸ See, e.g., Allen Kyle, et al., *Money Market Reforms: The Effect on the Commercial Paper Market*, 154 J. Banking and Finance 106947 (2023).

comment that raised liquidity requirements may reduce issuers' access to capital and increase the cost of capital, negatively affecting capital formation in commercial paper and certificates of deposit.⁶⁰⁹ Issuers may respond to such changes by reducing their issuance of commercial paper and certificates of deposit and increasing issuance of longer-term debt. In a somewhat analogous setting, some research explores the effects of the 2014 money market fund reforms, which may have resulted in asset outflows from prime money market funds into government money market funds and affected funding for large foreign banking organizations in the U.S., on bank business models.⁶¹⁰ One paper found that banks were able to replace some of the lost funding, but reduced arbitrage positions that relied on unsecured funding, rather than reducing lending.⁶¹¹ Another paper found that money market fund reforms led to an increase in the relative share of lending in bank assets and concludes that reduction in unstable funding can discourage bank investments in illiquid assets.⁶¹² Other research examined the effects of decreased holdings of European bank debt by money market funds during the Eurozone sovereign crisis in 2011. One paper found that reduced wholesale dollar funding from money market funds during this period led to a sharp reduction in dollar lending by Eurozone banks relative to euro lending, which reduced the borrowing ability of firms reliant on Eurozone banks prior to the sovereign debt crisis.⁶¹³

These potential costs of the final amendment to issuers may be mitigated by three potential factors. First, as discussed above and in the proposal, money market funds may respond to a higher weekly liquid asset threshold by increasing the maturity and liquidity risk in their

⁶⁰⁹ See, e.g., ICI Comment Letter; Dechert Comment Letter; CCMR Comment Letter.

⁶¹⁰ These outflows around the Oct. 2016 compliance date for the 2014 reforms, for example, led to reduced money market funds purchases of commercial paper with other entities like mutual funds eventually picking up the shortfall and an approximately 30 basis point spike in 90-day financial commercial paper rates for about three months.

⁶¹¹ See, e.g., Alyssa Anderson et al., *Arbitrage Capital of Global Banks* (Finance and Economics Discussion Series 2021-032. Washington: Board of Governors of the Federal Reserve System, May 2021), available at <https://doi.org/10.17016/FEDS.2021.032>.

⁶¹² See Thomas Flanagan, *Funding Stability and Bank Liquidity* (Working Paper, Mar. 2020), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3555346 (retrieved from SSRN Elsevier database).

⁶¹³ See Victoria Ivashina et al., *Dollar Funding and the Lending Behavior of Global Banks*, 130 Q.J. Econ. 1241, 1241-1281 (2015).

non-weekly liquid asset portfolio allocations. This effect may dampen the adverse demand shock for commercial paper, but also dampen the reductions in the portfolio risk of affected money market funds. However, for the past several years prime money market funds have maintained levels of liquidity that are close to or that exceed the final thresholds, without offsetting the low yield of shorter-term securities with significant holdings of riskier longer-term securities (“barbelling”).⁶¹⁴ Second, as discussed in the proposal, money market funds hold less than a quarter of outstanding commercial paper, which could limit the impact of the final amendments on commercial paper issuers and markets. If money market funds pull back from commercial paper markets and commercial paper prices decrease as a result, other investors may be attracted to commercial paper, absorbing some of the newly available supply, as observed after the 2016 reforms. Third, the amendments to liquidity requirements may increase some money market funds’ liquidity buffers, which may enable such funds to meet large redemptions from liquid assets and reduce the need to sell commercial paper to meet large redemptions during stress periods.⁶¹⁵ This may enhance the stability of commercial paper markets during times of market stress – an effect that is also limited by the relative size of money market fund holdings of commercial paper.

3. Stress Testing Requirements

a. Benefits

The final amendments will also alter stress testing requirements for money market funds. Under the baseline, money market funds are required to stress test their ability to maintain 10% weekly liquid assets under the specified hypothetical events described in rule 2a-7 since breach of the 10% weekly liquid asset threshold would impose a default liquidity fee. The amendments will eliminate the default liquidity fee triggered by the 10% threshold and the corresponding

⁶¹⁴ Fund incentives to barbell may be stronger in higher interest rate environments or when the yield curve for short-term securities is steeper.

⁶¹⁵ *See, e.g.*, Fidelity Comment Letter (stating that higher weekly liquid assets allowed the commenter to avoid selling commercial paper into frozen markets in Mar. 2020).

stress testing requirement around the 10% weekly liquid asset threshold. Instead, the amendments will require funds to determine the minimum level of liquidity they seek to maintain during stress periods and to test whether they are able to maintain sufficient minimum liquidity under such specified hypothetical events, among other requirements. We believe that the final stress-testing approach will allow for better tailoring of stress-testing results to individual fund characteristics, which may enhance the manager and the board's understanding of the risks to the fund portfolio under extreme and plausible market conditions, as well as enhance liquidity management and the ability of funds to meet redemptions.

Most commenters generally supported the proposed amendments to the liquidity stress testing requirements,⁶¹⁶ but one commenter supported the existing stress testing framework.⁶¹⁷ Different money market funds have different optimum levels of liquidity under times of stress. Therefore, the final amendments to stress testing requirements reflect our continuing belief that many factors influence optimum levels of minimum liquidity during stress periods, including the type of money market fund, investor concentration, investor composition, and historical distribution of redemption activity under stress. As such, we continue to believe that a more principles-based approach may improve the utility of stress testing as part of fund liquidity management. Specifically, the final amendments may allow funds to tailor their stress testing to the fund's relevant factors, which may enhance the fund managers' and the board's understanding of the risks to the fund portfolio under extreme and plausible market conditions, as well as enhancing liquidity management and the funds' ability to meet redemptions.

⁶¹⁶ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; T. Rowe Comment Letter; Schwab Comment Letter.

⁶¹⁷ See Federated Hermes Comment Letter I; Federated Hermes Comment Letter IV.

b. Costs

Amendments to fund stress testing requirements may impose direct and indirect costs. Under the final amendments, a fund will be required to determine the minimum level of liquidity it seeks to maintain during stress periods, identify that liquidity level in its written stress testing procedures, periodically test its ability to maintain such liquidity level, and provide the fund's board with a report on the results of the testing.

As a baseline matter, funds are already subject to stress testing requirements, which may reduce some of the burdens of the final amendments. Money market funds have also established written stress testing procedures to comply with existing stress testing requirements and report the results of the testing to the board. Thus, such funds may experience costs related to altering existing stress testing procedures as the final amendments would move from bright-line requirements to a principles based approach, as well as costs related to board reporting and recordkeeping.⁶¹⁸

In addition, to the degree that funds do not have sufficient incentives to manage liquidity to meet redemptions, they may choose insufficiently low minimum levels of liquidity for stress testing, which may reduce the value of stress testing and corresponding reporting for board oversight of fund liquidity risk. However, funds may have significant reputational incentives to manage liquidity costs: incentives that have, for example, led many funds to voluntarily provide sponsor support.

While most commenters generally supported the principles-based approach, one commenter opposed the change, stating that stress testing was not effective in March of 2020 as markets were frozen.⁶¹⁹ The final stress-testing approach would allow for better tailoring of stress-testing results to individual fund characteristics, which may enhance the manager and the

⁶¹⁸ The Commission estimates one-time costs of \$125,832 for all affected funds to amend stress testing procedures, and these costs have been amortized over three years in section V.B for purposes of the PRA.

⁶¹⁹ *See* Federated Hermes Comment Letter I.

board's understanding of the risks to the fund portfolio under extreme and plausible market conditions, as well as enhance liquidity management and the ability of funds to meet redemptions.

4. Liquidity Fees

a. Benefits and Costs of the Mandatory Liquidity Fee Amendments

i. Benefits

As discussed in section II, the final amendments include both mandatory and discretionary liquidity fee provisions intended to reduce liquidity externalities in money market funds. Specifically, as discussed in the baseline, money market fund investors transacting their shares typically do not incur the costs associated with their transaction activity. Instead, these liquidity costs may be borne by shareholders remaining in the fund, which may contribute to a first-mover advantage and run risk.⁶²⁰ Moreover, as discussed in the baseline, liquidity management by money market funds may impose negative externalities on all participants investing in the same asset classes, and this effect may be magnified if there are large-scale net redemptions during times of market stress. As discussed in further detail below, we anticipate the final liquidity fee framework will reduce the negative externalities that redeemers impose on non-transacting investors, protect non-transacting investors from dilution, and reduce run risk in money market funds.

The final liquidity fee framework will require institutional prime and institutional tax-exempt money market funds that experience daily net redemptions in excess of 5% of their net assets to assess liquidity fees so as to charge redeeming shareholders for the liquidity costs they impose on the fund. Specifically, the fee amount would reflect the fund's good faith estimate of the spread, other transaction costs, as well as market impact costs the fund would incur if it were

⁶²⁰ As discussed in the baseline, dilution costs most directly impact shareholders in floating NAV funds through changes to the NAV. In stable NAV funds, dilution costs can make the fund more likely to breach the \$1 share price if dilution costs are large.

to sell a pro rata amount (a vertical slice) of each security in its portfolio to satisfy the amount of net redemptions. The Commission anticipates that, under normal market conditions, it is likely that the fee amount would generally be *de minimis*, since money market funds already hold relatively high quality and liquid investments and will hold even higher levels of liquidity under the final amendments, which may reduce liquidity costs associated with a vertical slice assumption. In the event of *de minimis* costs (costs that are less than 0.01% of the value of the shares redeemed), a fund will not be required to impose a liquidity fee. If the fund is not able to make a good faith estimate of its liquidity costs based on the sale of a vertical slice, the fund will use a default liquidity fee, as discussed in section II.B.2. In addition, the final amendments will allow affected money market funds to assess discretionary liquidity fees if the board or its delegate determines that fees would be in the best interest of the fund.

We anticipate the final liquidity fee framework will reduce dilution of non-redeeming shareholders in the face of net redemptions. As discussed in greater detail in section IV.C.4.b.i below, redeeming investors will bear the fee. As a result, it may dampen any first-mover advantage, thus reducing the incentive to redeem early, the resulting fund outflows, and dilution resulting from these outflows. By reducing dilution, liquidity fees are also expected to protect investors that remain in a fund, for instance, during periods of high net redemptions. By protecting non-transacting investors from dilution costs of redemptions, the liquidity fee framework may also incentivize investors to stay in funds experiencing large redemptions, reducing run risk. Moreover, the liquidity fee framework may attract some investors (such as investors that redeem infrequently) to prime and tax-exempt money market funds.

The above economic benefits of liquidity fees may be influenced by several factors. First, under the final amendments, liquidity fees are triggered by same-day net redemptions – a threshold that we believe makes the final liquidity fee framework less susceptible to run risk than fees conditioned on weekly liquid assets. In general, if investors expect an indicator that triggers the fee (*e.g.*, weekly liquid assets or same-day net redemptions) to be below the fee threshold on

a given day, but above the fee threshold on subsequent days, they are incentivized to redeem early, before the liquidity fee applies. Therefore, the ability of investors to accurately forecast an indicator that triggers the fee over subsequent days may give rise to incentives for strategic redemptions. A day of relatively low weekly liquid assets combined with significant redemptions may be more likely than otherwise to be followed by a day with even lower weekly liquid assets, due to the need to absorb the trading costs of redemptions. This makes declines in weekly liquid assets more forecastable. By contrast, changes in net redemptions from one day to the next are more difficult to predict accurately because net flows aggregate orders from a large number of investors that may be redeeming and subscribing based on their cash needs, interest rate expectations, and risk tolerances, among other things. Investors may still seek to redeem during a redemption wave based on observation of prior days' net redemptions out of the fund or similar funds. However, such anticipatory redemptions run the risk that a liquidity fee would be applied on that day. In such a scenario, however, to the degree that fees accurately reflect liquidity costs, investors know that they would not be diluted if they stay in the fund, reducing their incentives to exit in anticipation of the application of a liquidity fee and corresponding run risk.

Second, under normal market conditions, investor dilution may not be significant and liquidity fees may not be charged or the fees charged may be small. However, the final rule is intended to address the dilution that can occur when a money market fund experiences large net redemptions and is not intended to result in significant fees unless there is significant net redemption activity leading to large liquidity costs, such as in times of stress in short-term funding market. As discussed in section II, funds are expected to charge larger fees in times of stress, when the benefits of protecting investors from dilution are higher.

Third, as discussed in greater detail in section II, the final liquidity fee framework will require affected funds to calculate fees based on, among other things, an assessment of the market impacts of selling a vertical slice of the fund portfolio. To the degree that the costs of selling a pro rata amount of each portfolio security cannot be estimated in good faith and

supported by data, funds will use the default liquidity fee prescribed in the rule. This default liquidity fee is a proxy for true liquidity costs of redemptions in times of stress,⁶²¹ and may over-estimate or under-estimate the liquidity costs of different funds. In addition, differences in fund portfolio composition may allow some funds to estimate liquidity fees under stress, while other affected funds may be unable to do so and may simply charge the default fee. This may decrease the ex-ante benefit of increased comparability of liquidity costs across affected money market funds.

Fourth, the final liquidity fee framework addresses only the portion of dilution costs related to trading costs and market impacts, and will not address other sources of dilution discussed in section IV.B. Thus, the requirement may only partly reduce the dilution costs that redemptions impose on non-transacting investors and the related liquidity externalities.

The final amendments will require affected funds to implement liquidity fees when faced with redemptions in excess of the 5% threshold. While money market funds may have reputational incentives to manage liquidity to meet redemptions,⁶²² affected funds also face collective action problems and disincentives stemming from investor behavior. Specifically, to the degree that institutional investors may use institutional prime and institutional tax-exempt funds for cash management and their flows are sensitive to liquidity fees, funds may be disincentivized to implement liquidity fees until the fund is under severe and prolonged stress. For example, even if all institutional money market funds recognized the benefits of charging redeeming investors for the liquidity costs of redemptions, no fund may be incentivized to be the first to adopt such an approach as a result of the collective action problem. By making liquidity fees in the face of large outflows mandatory, rather than optional, the final amendments are

⁶²¹ As discussed elsewhere, to the degree that discounts experienced by ultra-short bond exchange traded funds in the peak market stress of March 2020 may serve as a proxy for liquidity costs of money market funds, the default liquidity fee is generally consistent with the range of money market fund liquidity costs during the same period.

⁶²² One commenter stated that a fund's board of independent directors would have reputational and legal incentives to apply a discretionary fee to prevent shareholder dilution regardless of whether other funds' boards apply fees. *See* Federated Hermes Comment Letter V.

intended to ensure that funds assess liquidity fees to capture the dilution costs of net redemptions. Moreover, it may be suboptimal for an individual money market fund to implement liquidity fees frequently under normal market conditions, as the operational costs of doing so are immediate and certain, while the benefits are largest in relatively rare times of liquidity stress. The final rule's application of liquidity fees by all institutional prime and institutional tax-exempt funds faced with large outflows is intended to ensure that liquidity fees are deployed in times of stress by all affected funds, protecting remaining fund investors from dilution costs when liquidity costs are highest.

The Commission has also received comments that the removal of the tie between weekly liquid assets and gates and fees would have been sufficient, and that other amendments are unnecessary.⁶²³ We note that for reasons discussed throughout, the Commission is adopting all of the amendments, which we believe can work in complementary ways to reduce liquidity externalities and run risk in money market funds, although each element of the final rule may have lower incremental benefits. The Commission has also received comments questioning whether any meaningful dilution occurs in money market funds.⁶²⁴ For example, one commenter stated that, from their own data and industry experience, no dilution was actually experienced and that, if dilution occurred, it would have been observable in a declining NAV during the stressed period in which money market funds experienced net redemptions.⁶²⁵ The Proposing Release documented declines in the distribution of money market fund NAVs during peak market stress of March 2020.⁶²⁶ However, because investors can redeem in response to anticipated or realized NAV dips, it is difficult to disentangle such effects from the dilution that results from forced sales to meet redemptions. Moreover, dilution costs exist – and are borne by

⁶²³ See, e.g., Federated Hermes Comment Letter I; ICI Comment Letter.

⁶²⁴ See, e.g., Federated Hermes Comment Letter I; SIFMA AMG Comment Letter; Capital Group Comment Letter; JP Morgan Comment Letter; Fidelity Comment Letter.

⁶²⁵ See Federated Hermes Comment Letter II.

⁶²⁶ See 87 FR 7297.

remaining investors – even if funds do not fully exhaust their liquidity buffers and experience NAV dips from forced sales, and anti-dilution mechanisms are intended to address dilution costs that stem from a fund’s liquidity becoming depleted, rather than necessarily fully exhausted. Finally, we do not observe dilution costs that would have occurred in absence of the Federal Reserve’s facilities that may have prevented substantial declines in fund NAVs from forced sales to meet redemptions.

Another commenter estimated the impact of swing pricing on its money market fund on March 16, 2020, and seemed to suggest that the impact would have been slightly more than 1 basis point.⁶²⁷ Another commenter analyzed the size of a swing factor adjustment if a fund held 50% of its assets in weekly liquid assets and applied a 100-basis point upward move in market yield for all other holdings (a historically large move, according to the commenter) as a proxy of market impact. The commenter stated that, in this analysis, a fund’s NAV would only move down by \$0.0007.⁶²⁸ Importantly, this comment addresses the hypothetical impacts of specific interest rate shocks (rather than, for example, large firm-specific or sector-wide credit shocks) and do not revalue the entire fund portfolio based on market impacts of the liquidation of a pro-rata slice of the fund portfolio using transaction or quotation data. While dealer accommodation may allow money market funds to transact at bid or mid prices under normal market conditions, historical bid and mid estimates from pricing vendors may not reflect prices at which money market funds are able to transact when markets are under stress.⁶²⁹ In addition, evidence from the commercial paper market suggests that, during the liquidity stress of 2020, the commercial paper market exhibited a significant amount of stress reflected in spikes in the yield spread between commercial paper and Treasuries and in the commercial paper bid-ask spread, as can be seen in

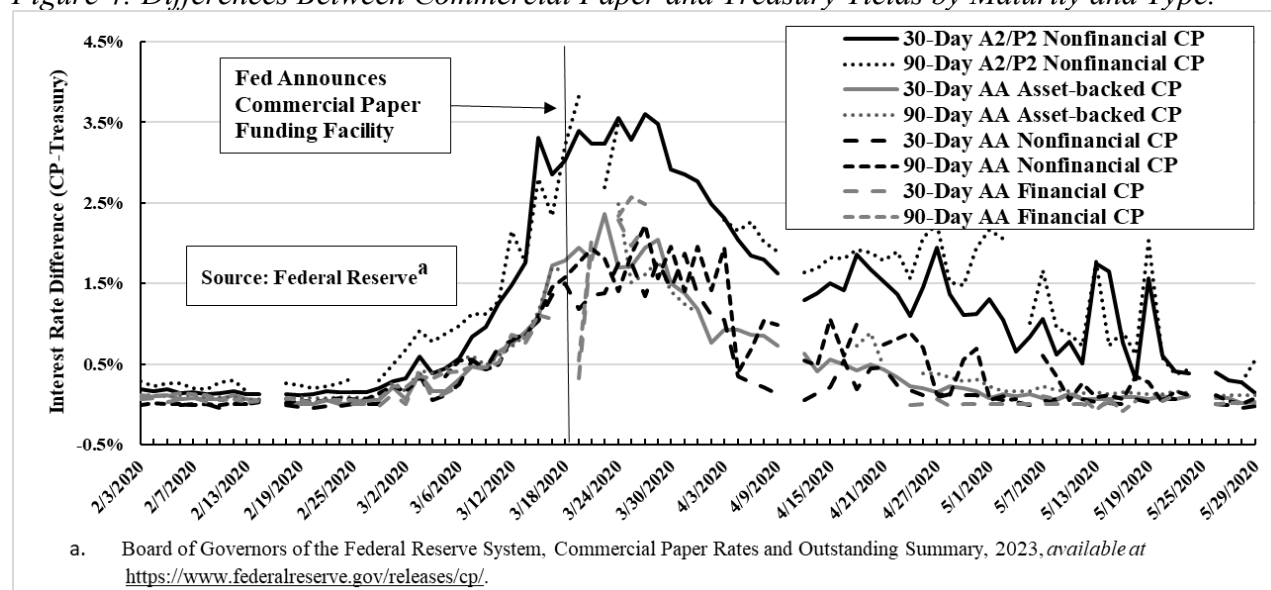
⁶²⁷ See, e.g., Capital Group Comment Letter.

⁶²⁸ See Fidelity Comment Letter (stating that if the fund had 30% WLA and the market impact factor was 150 basis points, the NAV would decline by \$0.0014).

⁶²⁹ For example, many dealers may not bid on certain issuer names altogether to avoid a flood of sell orders from prime money market funds and other short-term credit investors. See, e.g., Blackrock Comment Letter.

Figure 4. For example, bid-ask spreads of highly rated dealer-placed commercial paper reached between approximately 25 and 55 basis points at the height of the stress in March and April 2020 depending on maturity.⁶³⁰ In addition, we are aware of research showing that ultra-short bond exchange traded funds exhibited significant NAV discounts during the peak of market stress in March 2020.⁶³¹ To the degree that ultra-short bonds may be somewhat comparable to the debt instruments held by money market funds, and to the extent that the magnitude of exchange traded fund discounts may proxy for liquidity costs of money market funds that hold similar assets, this could suggest nontrivial dilution costs during market stress.

Figure 4: Differences Between Commercial Paper and Treasury Yields by Maturity and Type.



Commercial paper is just one group of money market fund portfolio holdings, and data on certificates of deposit and municipal securities is scarce. Moreover, we do not have granular data about daily money market fund holdings and quotation data that would enable us to estimate the amount of dilution that could have been recaptured in March 2020 or the prevalence of other sources of dilution discussed in section IV.B. To the best of our knowledge, such data are not

⁶³⁰ See Capital Advisors Group, *Institutional Cash Investments in the COVID-19 New Reality*, available at <http://www.capitaladvisors.com/wp-content/uploads/2020/05/Institutional-Cash-Investments-in-the-COVID-19-New-Reality.pdf>. The negative bid/ask spread seen during Mar. 2020 may reflect a dealer's willingness to bid on liquid CP and to sell more illiquid CP at a lower price.

⁶³¹ See Kenechukwu Anadu et al., *Swing Pricing Calibration: A Simple Thought Exercise Using ETF Pricing Dynamics to Infer Swing Factors for Mutual Funds* (SRA Note, Issue Number: 2022-06), available at <https://www.bostonfed.org/-/media/Documents/Workingpapers/PDF/2022/sra-note-2206.pdf>.

publicly available. In addition, order sizes, fund portfolio holdings, the liquidity management strategy used to meet redemptions, and execution quality may impact the precise dilution costs experienced by each fund.

However, from the above data on short-term commercial paper and ultra-short bond exchange traded funds, in times of stress in short-term funding markets, liquidity costs of money market funds can spike. To the degree that money market funds absorb redemptions out of liquid assets, and are unable to perfectly anticipate daily redemptions and ladder portfolio maturities accordingly, redemptions dilute investors remaining in the fund by reducing the amount of liquidity available to meet future redemptions. Moreover, the final rule would require funds to estimate market impact factors using the assumption of the sale of the pro-rata share of the fund portfolio holdings. Thus, had the final liquidity fee framework been in effect during market stress in March 2020, we believe that many affected money market funds would have charged liquidity fees on redemptions, thereby reducing dilution of non-transacting shareholders and the impact of redemptions on affected funds.

ii. Costs

Broadly, the final liquidity fee requirements may impose three groups of costs. First, as analyzed in section V, affected money market funds would bear reporting and recordkeeping burdens arising out of the final liquidity fee requirements.⁶³² For money market fund boards that delegate liquidity fee determinations to the fund's adviser or officer, funds would also have burdens associated with establishing board-approved written guidelines for determining the application and size of liquidity fees, as well as the burdens of periodic board oversight of the

⁶³² As discussed in section V.B, the Commission estimates the total annual costs attributable to the information collection requirements of the liquidity fee amendments under rule 2a-7 will be \$1,228,659. This cost estimate includes both initial and ongoing costs with the former being amortized over three years. The estimated initial costs of the website disclosure amendments under rule 2a-7 is \$84,966 for all affected funds, amortized over three years. As discussed in section V.E, the Commission estimates a total initial cost of updating disclosures to comply with the amendments to Form N-1A of \$59,682 for all affected funds, amortized over three years. As discussed in section V.G, the Commission estimates a total annual cost of preserving records of liquidity fee computations of \$97,347, which includes both internal and external costs.

delegate's determinations. Money market funds generally already have playbooks or other written materials related to the circumstances in which a fund's board may consider liquidity fees under the current rule. Funds may update these materials to conform to the final rule's requirements. The costs of board oversight of the delegate may include costs of preparing materials in advance of board meetings to describe any instances in which the delegate determined to impose a fee, as well as the factors the delegate considered in determining to impose a fee and the size of the fee.

Second, affected money market funds may incur costs related to implementing an analytical framework required to implement the final liquidity fee requirements, including costs of estimating dilution under the vertical slice assumption. Section II discusses how affected money market funds may choose to comply with the vertical slice requirement. One commenter questioned the feasibility of estimating market impact using the vertical slice approach.⁶³³

Another commenter estimated their initial costs of implementing all parts of the proposal at between \$10 to \$20 million, with \$2 to \$4 million in annual ongoing costs (including staffing and personnel costs, legal fees, printing and mailing costs and fees to custodians).⁶³⁴ The commenter indicated that approximately two-thirds of these estimated costs would be necessary to implement the swing pricing, disclosures and negative interest rate aspects of the proposal.

The commenter also indicated that these expenses will be somewhat larger for larger fund families and their services providers, and somewhat smaller for smaller fund families and their services providers, but will not vary exactly in proportion to the size of the money market fund family. As discussed above, the Commission is modifying its approach to the negative interest rate aspects as proposed, is scaling back some of the more costly parts of the disclosure requirements, and is adopting a liquidity fee framework (which we believe may be less costly) in lieu of the proposed swing pricing requirement. However, if costs of the liquidity fee framework

⁶³³ See ICI Comment Letter.

⁶³⁴ See Federated Hermes Comment Letter I.

are of a comparable order of magnitude to the costs of the proposed swing pricing requirement at the fund level, an estimate of the initial compliance costs of the final liquidity fee framework based on that commenter's assumptions may therefore be between \$6.7 million and \$13.4 million, with between \$1.3 and \$2.7 million in annual ongoing costs.⁶³⁵ However, as discussed throughout the release, a number of commenters indicated that liquidity fees may be far less costly and operationally complex than the proposed swing pricing requirement,⁶³⁶ and thus, these figures may overestimate the costs of the final liquidity fee framework.

Third, the liquidity fee amendments would require intermediaries and service providers (such as broker-dealers, registered investment advisers, retirement plan record-keepers and administrators, banks, other registered investment companies, and transfer agents) that receive flows directly to apply fees to investors' redemptions and submit the proceeds to the fund, which may increase operational complexity and cost for intermediaries. While intermediaries and service providers to non-government money market funds should be equipped to impose liquidity fees under the current regulatory baseline, the final amendments will likely result in more frequent application of fees than what is observed currently given that no money market funds have imposed liquidity fees under the current rule. As discussed in section II.B., there are also differences between the current liquidity fee framework and the new mandatory liquidity fee framework that may affect how intermediaries apply fees, such as the requirement to apply fees based on same day net redemptions, and the likelihood such fees would vary day to day under stressed conditions. As a result, intermediaries may need to develop or modify policies, procedures, and systems designed to apply fees to individual investors and submit liquidity fee proceeds to the fund. In addition, liquidity fees may require more coordination with a fund's

⁶³⁵ These ranges correspond to two-thirds of the corresponding ranges provided by the commenter.

⁶³⁶ *See, e.g.*, ICI Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Invesco Comment Letter; Schwab Comment Letter; Morgan Stanley Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter; State Street Comment Letter; Western Asset Comment Letter; IIF Comment Letter; Allspring Funds Comment Letter; Dechert Comment Letter.

intermediaries and service providers, since each of them needs to impose fees on an investor-by-investor basis, which may be more difficult with respect to omnibus accounts. Moreover, some funds may choose to develop or modify policies and procedures reasonably designed to ensure intermediaries are appropriately and fairly applying the fees. Finally, to determine the liquidity fee amount, funds would need to receive information from intermediaries about gross redemptions for a given day. To the degree that some intermediaries may currently provide only net flow information to funds, intermediaries may need to update their arrangements with funds to send the gross amount of redemptions in a timely manner. Due to the costs that the liquidity fee amendments may impose on intermediaries and distribution networks of affected funds, money market funds may alter their intermediary distribution contracts, networks, and flow aggregation practices.

The magnitude of such costs would depend on, among other things, intermediaries' current policies and procedures related to the imposition of liquidity fees under the current rule; future redemption patterns out of affected money market funds under normal conditions and under stress, and the liquidity costs thereof (which would affect how frequently fees would be applied under the final rule); how affected money market funds choose to structure their relationships with service providers and intermediaries; and the way in which affected funds may choose to alter their intermediary contracts, networks, and flow aggregation practices in response to the final rule. In the Proposing Release, the Commission was unable to quantify such burdens and costs and solicited comment and data that would inform this analysis. While commenters did not provide estimates or data that could inform estimates of such costs, a large number of commenters suggested that a liquidity fee framework would be far less costly and operationally complex than the proposed swing pricing requirement.⁶³⁷

⁶³⁷ See, e.g., ICI Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Invesco Comment Letter; Schwab Comment Letter; Morgan Stanley Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter; State Street Comment Letter; Western Asset Comment Letter; IIF Comment Letter; Allspring Funds Comment Letter; Dechert Comment Letter.

The costs of the final liquidity fee amendments may be passed along in part or in full to institutional money market fund investors in the form of higher expense ratios or fees. In addition, to the degree that the final amendments result in liquidity fees being charged to redeemers (relative to the baseline of funds being able to assess the fees but not being required to assess them and never having assessed them), the final liquidity fee requirement will increase the variability of realized returns for redeeming investors in affected money market funds, particularly in times of market stress. Thus, these amendments may reduce demand of some investors for institutional prime and institutional tax-exempt money market funds. However, they may smooth NAV returns for non-redeeming investors as transactions costs would no longer detract from the fund NAV. Hence, as discussed above, the liquidity fee framework may also attract new investors, such as investors that tend to redeem infrequently, to prime and tax-exempt money market funds.

If the final amendments reduce investor demand in some funds, they would lead to a decrease in assets under management of these money market funds, thereby potentially reducing the wholesale funding liquidity they provide to other market participants. A reduction in the number of money market funds and/or the amount of money market fund assets under management as a result of the final liquidity fee requirements would have a greater negative impact on money market fund sponsors whose fund groups consist primarily of money market funds, as opposed to sponsors that offer a more diversified range of mutual funds or engage in other financial activities (*e.g.*, brokerage). However, the final amendments may also lead to an increase in demand for government money market funds, which could dampen or offset the potential adverse effects of the final rule on the availability of short-term funding liquidity, and on fund sponsors whose fund groups consist primarily of government money market funds.

In addition, the liquidity fee framework may reduce the willingness of some investors to hold prime and tax-exempt money market funds due to the possibility of a liquidity fee being applied. Such investors may reallocate capital into, for example, government money market

funds. If the final amendments result in a shift in assets under management out of prime and tax-exempt money market funds and into government money market funds, they may influence costs of capital for issuers, such as municipalities and corporate issuers due to the need to raise capital from, for example, bank and bond financing. While we cannot estimate the magnitude of such potential impacts under the final rule, in the swing pricing context, one commenter estimated that the shift of balances out of prime money market funds would result in lost income and higher borrowing costs of roughly 2% to 3% per annum on the aggregate amount of prime money market fund balances shifted to alternative forms of intermediation, such as banks.⁶³⁸ Although swing pricing and liquidity fees can both charge redeeming investors for the liquidity costs they impose on a fund's non-redeeming investors, the final liquidity fee framework is tailored to reduce costs on funds and investors relative to the proposed swing pricing approach, as discussed in detail in sections II and IV.D, which may mitigate these effects.

Moreover, liquidity fees may increase the variability of realized returns of institutional investors especially during times of stress, which can reduce the attractiveness of such funds to such investors. Importantly, under the baseline, institutional funds experience NAV volatility and money market funds are already able to assess fees. Risk-averse investors that prefer to be able to redeem at NAV and without fees may have already shifted to government money market funds or bank accounts, for example, around the 2016 implementation of money market fund reforms. The final liquidity framework has been designed to mitigate these economic costs in several ways. First, the final liquidity fee requirements are tailored to the level of net redemptions. When daily net redemptions are low (at or below 5%), affected money market funds will not be required to assess liquidity fees.

Second, as discussed in section II.B.2, affected money market funds will not be required to assess liquidity fees if a calculated fee is less than 0.01% of the value of shares redeemed,

⁶³⁸

See, e.g., Federated Hermes Comment Letter I.

even if daily net redemptions exceed the 5% threshold. Thus, under normal market conditions, affected money market funds will not need to assess liquidity fees if their estimated liquidity costs are *de minimis*.

Third, the 5% net redemption threshold for the application of mandatory liquidity fees will be applied on a daily basis, rather than on a pricing period basis as with the proposed swing pricing requirement. To the degree that affected money market funds may experience systematic intraday patterns of large redemptions and large subscriptions, this aspect of the final amendments may reduce the frequency with which funds must estimate liquidity costs, and the frequency with which intermediaries and service providers must assess and pass along the proceeds from liquidity fees.

Further, we recognize that, while not required, some funds may choose to reduce the number of NAV strikes they offer or no longer offer multiple NAV strikes for operational ease. As discussed in section II, funds and intermediaries may also develop other approaches to address this issue. Depending on a given fund's approach, a redeeming investor may experience a reduction in its access to liquidity relative to current practices. In addition, different approaches may have differing effects on investors or raise tax or other considerations. Overall, we believe it is unlikely that the mandatory liquidity fee would result in a redeeming investor being unable to access same-day liquidity.

The liquidity fee requirement may impose costs on investors seeking to redeem shares in funds they no longer wish to hold, such as in response to poor fund management, poor performance, or for other reasons. Under the final amendments, all redemptions out of an affected fund on a day the fund has net redemptions in excess of 5% of net assets, regardless of the cause for the redemption, will result in a liquidity fee being calculated and assessed, unless the fund's liquidity costs are *de minimis*. However, we believe that such a fee would be unlikely to affect an investor's decision to redeem from a fund the investor no longer wishes to hold for reasons that are persistent characteristics of a fund, such as the ability of an individual fund

manager, and thus is less likely to be prone to a sudden wave of redemptions on a particular day. As such, we believe that the effect of the liquidity fee requirement on efficiency via market discipline will be limited. Moreover, the liquidity fee framework is intended to capture any liquidity costs that redemptions impose on affected funds and protect non-transacting investors from dilution costs.

In addition, we believe that the final liquidity fee framework is a less costly anti-dilution tool relative to the proposal. Specifically, as discussed in section II, the costs of the liquidity fee framework are expected to be lower than those of the proposed swing pricing requirement. For example, many commenters stated that liquidity fees would be easier for money market funds to implement.⁶³⁹ Some commenters suggested that funds would be able to leverage and build off of their existing experience with liquidity fees under the current regulatory baseline,⁶⁴⁰ while commenters indicated that swing pricing is ill-suited for money market funds given the general lack of experience with swing pricing in the money market fund industry.⁶⁴¹

b. Benefits and Costs of Specific Aspects of the Final Implementation of the Liquidity Fee Amendments

The final liquidity fee requirement for institutional prime and institutional tax-exempt funds is characterized by six features. First, if a fund has net redemptions exceeding 5% on a given day, the fund must estimate the liquidity costs associated with those redemptions and assess a fee (unless the fee would be *de minimis*). Second, funds will use order flow information available within a reasonable period after the last NAV strike of the day to determine whether the 5% net redemption threshold has been reached. Third, the liquidity fee amount will be an

⁶³⁹ See, e.g., Federated Hermes Comment Letter II; Invesco Comment Letter; SIFMA AMG Comment Letter; Schwab Comment Letter; IIF Comment Letter; BlackRock Comment Letter.

⁶⁴⁰ See, e.g., Federated Hermes Comment Letter II; Invesco Comment Letter; SIFMA AMG Comment Letter; Schwab Comment Letter; IIF Comment Letter.

⁶⁴¹ See Morgan Stanley Comment Letter; SIFMA AMG Comment Letter; IIF Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Comment Letter of Senator Pat Toomey (Apr. 12, 2022) (“Senator Toomey Comment Letter”); Mutual Fund Directors Forum Comment Letter; see also Profs. Cecchetti and Schoenholtz Comment Letter.

estimate of the costs of selling a vertical slice of the fund's portfolio to meet the net redemptions. Fourth, if the fund cannot determine that amount based on current market conditions, a set default fee of 1% will apply. Fifth, the mandatory liquidity framework would not cap mandatory liquidity fees triggered by the 5% net redemption threshold. Sixth, all non-government money market funds could assess discretionary liquidity fees if the board (or its delegate) determines that fees are in the best interest of the fund, which may include situations in which net redemptions are at or below the 5% threshold. These features of the final rule aim to address the liquidity externalities that redeemers impose on investors remaining in the fund in a tailored manner and are expected to result in reductions in the first-mover advantage and run risk in institutional money market funds.

i. Fee Threshold: 5% Net Redemption Threshold

Under the final amendments, when daily net redemptions exceed 5% of the fund's net assets, funds will be required to assess a liquidity fee (unless the fee would be *de minimis*), with the fee amount reflecting the fund's good faith estimate of the spread, other transaction (*i.e.*, any charges, fees, and taxes associated with portfolio security sales), and market impact costs the fund would incur if it were to sell a pro rata share of each security in its portfolio to satisfy the amount of net redemptions (*i.e.*, vertical slice). The final amendments may, thus, allow funds to recapture the liquidity costs of large redemptions, benefitting non-transacting shareholders and reducing liquidity externalities redeemers impose on other fund investors.

The final framework will require funds to charge liquidity fees that include the spread cost. Relative to a model-generated mid price, striking a NAV at a model-generated bid price may result in less dilution of existing shareholders on days with net redemptions. To the degree that most funds are using model-generated bid prices from pricing vendors to strike the NAV, and assuming that these bid prices accurately reflect the bid price in the market, the primary benefit of the final liquidity fee requirements would operate through the market impact. Market impact costs are likely to be significant during periods in which funds face large redemptions and

short-term funding markets are under stress, such that market impact costs are significant. These are also periods in which dilution costs and run risk in affected money market funds, and, hence, the benefits of liquidity fees, may be highest.

Based on an analysis of historical daily redemptions out of institutional prime and institutional tax-exempt money market funds between December 2016 and October 2021 and as discussed in greater detail in section IV.D.4, net fund flows on most days are low. For example, Table 6 shows that an average of 3.2% of the 47 institutional prime and institutional tax-exempt money market funds that operated during that time period would have exceed the 5% net redemption threshold on any given day.

Table 6: Average Percentage of Institutional Money Market Funds per day Above a Given Threshold.

Institutional Funds	Average Fund Count	Net Redemption Threshold						
		4%	5%	6%	7%	8%	9%	10%
Prime Only	37	3.4%	2.4%	1.7%	1.3%	0.9%	0.8%	0.6%
Prime + Tax-exempt	47	4.4%	3.2%	2.4%	1.8%	1.4%	1.1%	0.9%

Source: CraneData

Importantly, the 5% net redemption threshold may allow funds to recapture spread and market impact costs, and potentially prevent more of the dilution from large redemptions, as compared to higher thresholds. For example, as can be seen from Table 7, an analysis of CraneData on outflows during the week ending March 20, 2020, suggests that approximately 31% of “fund days”⁶⁴² for institutional prime and institutional tax-exempt funds exceeded the 5% threshold. In contrast, only 11% of the fund days were in excess of 10%. This analysis suggests that the final rule’s 5% threshold would have triggered mandatory liquidity fees for approximately one third of the time during the week of March 20, 2020. Relative to a higher net

⁶⁴² “Fund days” refers to observations that consist of the set of daily redemptions for the funds in our sample. For example, a sample of 35 funds observed over 5 days produces a sample of 175 fund days.

redemption threshold, under the final rule, the liquidity fee would trigger more often, potentially recapturing more dilution costs and having a greater effect on redemption incentives.

Table 7: Percentage of Fund Days above a Redemption Threshold during the Week of March 20, 2020.

Institutional Funds	Fund Count	Net Redemption Threshold						
		4%	5%	6%	7%	8%	9%	10%
Prime Only	35	43%	34%	31%	25%	19%	16%	12%
Prime + Tax-exempt	43	39%	31%	28%	21%	17%	14%	11%

Source: CraneData

Overall, the net redemption threshold for the mandatory liquidity fee framework influences the number of funds that experience significant redemptions that generally would be required to assess a liquidity fee during severe market stress. In the swing pricing context, several commenters suggested the proposed 4% redemption threshold for applying a market impact factor was too low.⁶⁴³ Below we present additional analysis to further quantify the effects of the redemption threshold. Specifically, we conducted an analysis of the fraction of funds that would have dropped below certain liquid asset thresholds and would have been required to assess a liquidity fee during market stress of March 2020, had the final amendments been in place. This analysis may shed light on the fraction of funds that would have been required to assess liquidity fees under different redemption thresholds.

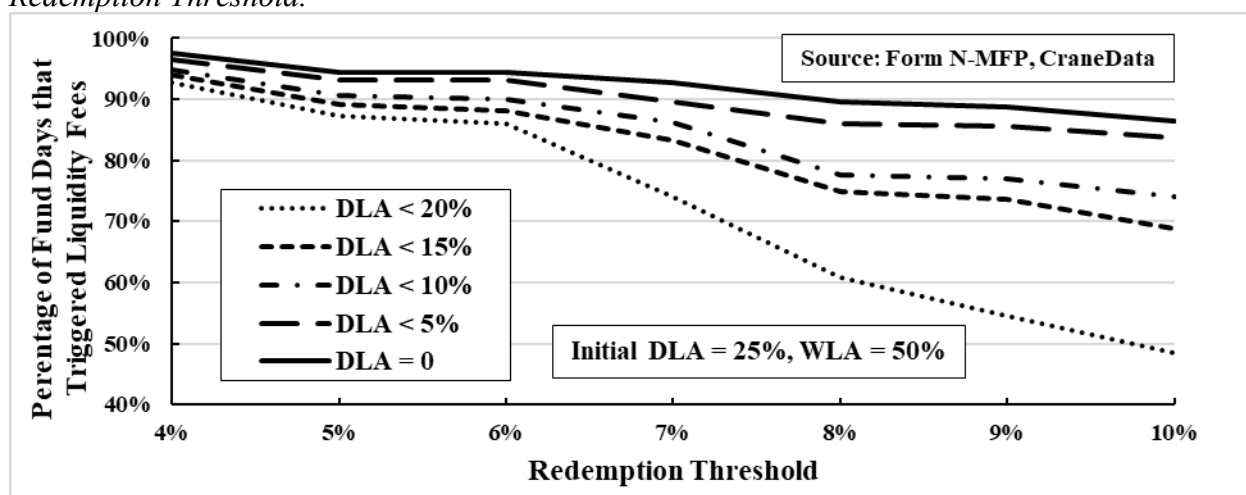
First, we combine daily redemption patterns from 42 public institutional prime funds during the week ending March 20, 2020, with 20 equally sized bins representing different weekly liquid asset distributions maturing across days 2 through 5 of the week (*e.g.*, one such distribution would be characterized by 30% of weekly liquid assets maturing on day 2, 25% on day 3, 25% on day 4, 20% on day 5).⁶⁴⁴ This combination results in 840 series corresponding to

⁶⁴³ See, *e.g.*, IIF Comment Letter; ICI Comment Letter.

⁶⁴⁴ See section III.D.2.a and section III.D.2.a of the Proposing Release where the Commission used the same models to quantify the potential effect of various liquidity thresholds on the probability that money market funds would confront liquidity stress.

hypothetical paths of liquidity during a period of stress.⁶⁴⁵ Given these paths, we determine the proportion of days on which a fee would be triggered as a percentage of days on which funds experience various declines in levels of liquidity. For example, Figure 5 plots the results for the paths for all funds starting with 25% in daily liquid assets and 50% in weekly liquid assets, with the fraction of days funds would generally have been required to assess a liquidity fee on the vertical axis, as a function of various levels for the net redemption threshold on the horizontal axis.⁶⁴⁶

Figure 5: One Week of Stress: Percentage of Fund Days that Drop Below a Given Daily Liquid Asset Threshold That Would Have been Required to Apply a Liquidity Fee as a Function of the Redemption Threshold.



Next, we extend a model employed by one commenter⁶⁴⁷ and conduct a similar analysis for more prolonged periods of stress, such as 3 to 5 weeks of sustained redemptions using the weekly redemptions seen for the crisis week ending March 20, 2020, which could occur absent government intervention. Specifically, we combine weekly redemption patterns from 42 public institutional prime funds during the week ending March 20, 2020, with 1,744 public institutional prime portfolios observed in the monthly Form N-MFP filings over a period spanning October

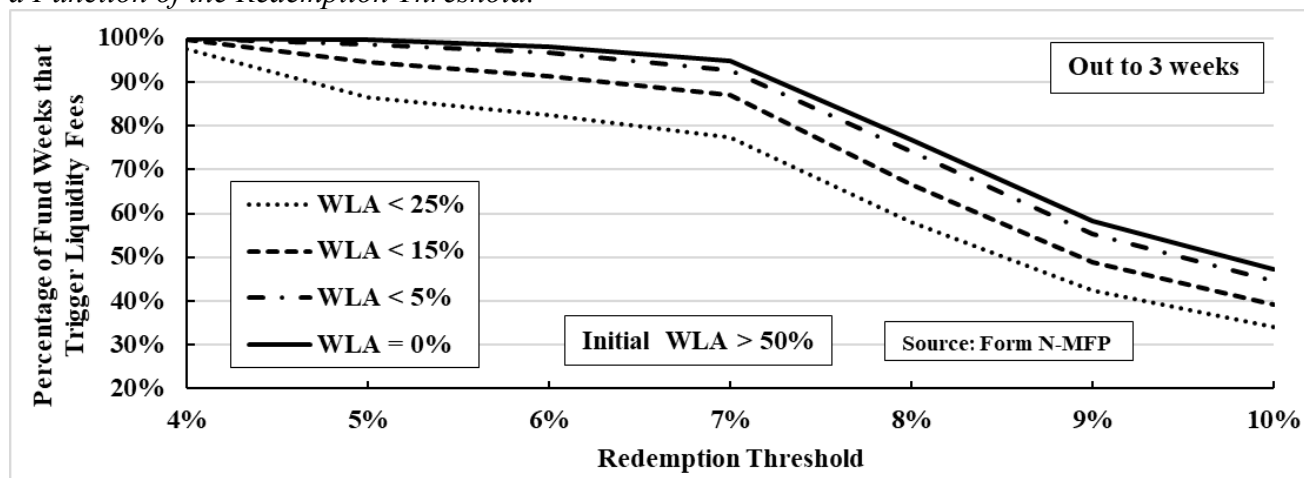
⁶⁴⁵ Applying the 42 redemptions paths to different day 2 through 5 weekly liquid asset distributions allows us to consider how funds' liquidity would have fared under alternate portfolios during the week of Mar. 20, 2020, while increasing the number of data points for the analysis.

⁶⁴⁶ Additional models with higher levels of initial liquidity produced higher percentages of fund days for which funds that eventually dropped below a given threshold would have been required to apply liquidity fees as a function of the net redemption threshold.

⁶⁴⁷ See ICI Comment Letter.

2016 to February 2020.⁶⁴⁸ The portfolio assets are binned according to their maturities (ranging from 1 week to more than 10 weeks). This combination results in 73,248 series corresponding to hypothetical paths of weekly liquidity during a hypothetical period of sustained stress.⁶⁴⁹ All funds enter the stress period with over 50% in weekly liquid assets. Figure 6 plots the results for a 3-week stress period, while Figure 7 plots the results for a 5 week stress period.⁶⁵⁰

Figure 6: Three Weeks of Stress: Percentage of Weeks during which Funds that Dropped Below a Given Weekly Liquid Asset Threshold Would Have Been Required to Apply a Liquidity Fee as a Function of the Redemption Threshold.

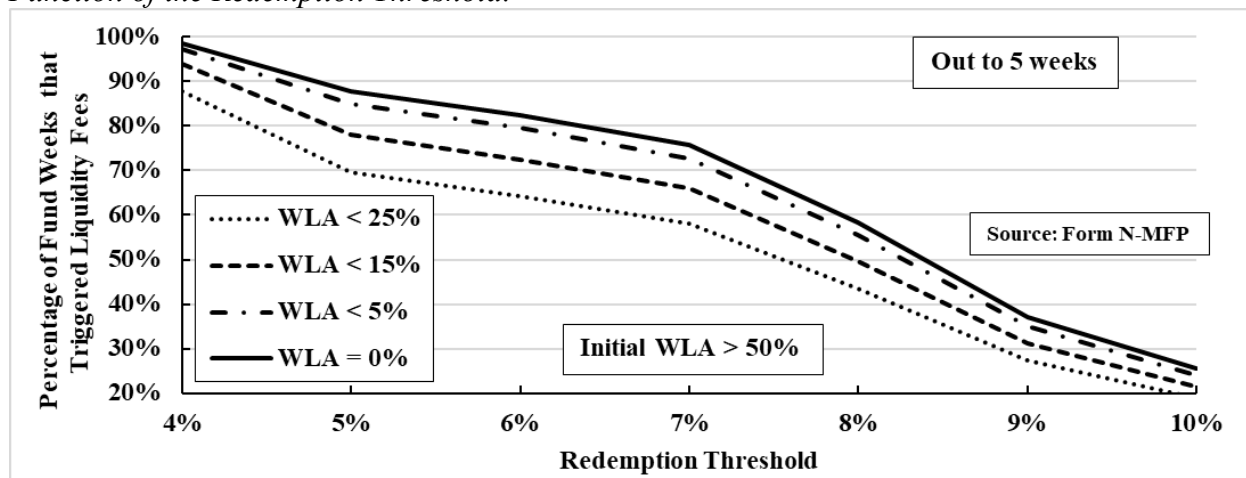


⁶⁴⁸ See section IV.D.2.a for additional model details. To address the robustness of the results, different model scenarios, which removed redemption patterns associated with funds with weekly liquid assets below 35% that may have exasperated redemptions, did not change the result significantly.

⁶⁴⁹ The redemption thresholds are adjusted so that weekly outflows are comparable to daily redemption thresholds. For instance, a 4% daily outflow sustained for a five day trading week implies a weekly outflow of about 18.5%.

⁶⁵⁰ Since these figures chart weekly redemption rates, this analysis does not capture instances where net redemptions exceed a given redemption threshold on a single day, but the average weekly net redemption does not. Additional models extending the stress period out to 10 weeks produced lower percentages of weeks for which funds that dropped below a given threshold would have been required to apply liquidity fees as a function of the net redemption threshold.

Figure 7: Five Weeks of Stress: Percentage of Weeks during which Funds that Dropped Below a Given Weekly Liquid Asset Threshold Would Have Been Required to Apply a Liquidity Fee as a Function of the Redemption Threshold.



The above analyses show that, as the net redemption threshold rises, the frequency with which funds experiencing severe declines in their liquid assets would have been required to apply a liquidity fee declines. This analysis may be interpreted as quantifying the impact of the redemption threshold on how many funds with various levels of liquidity would have been required to apply a liquidity fee had the final amendments been in place under various durations of stress.

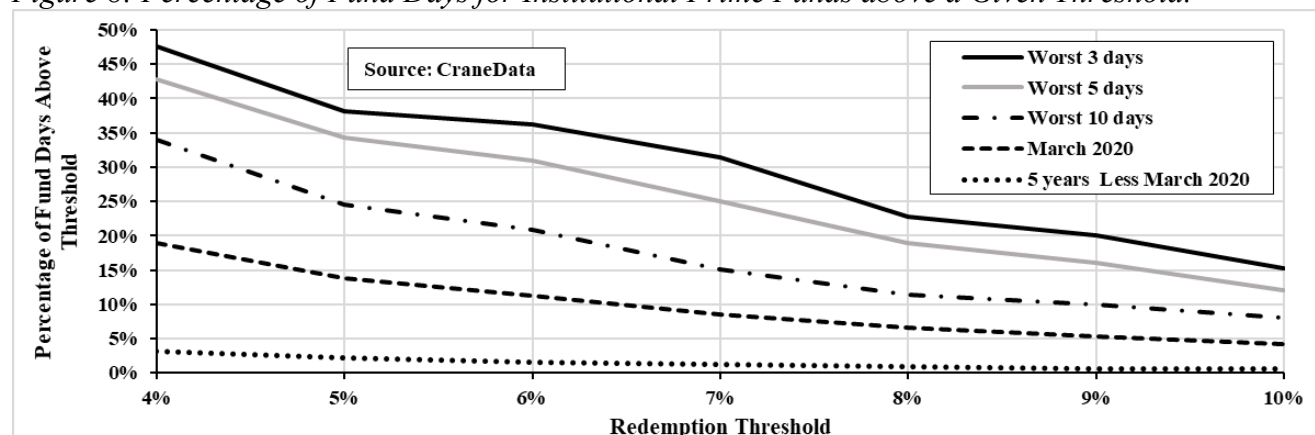
Alternatively, we can examine the impact of the redemption threshold by analyzing fund outflows during the worst days of market stress in March 2020. This analysis may shed light on how the redemption threshold influences the scope of the liquidity fee requirements on days with the largest outflows out of all funds. Specifically, Table 8 and Figure 8, using CraneData, quantify the average percentage of fund days for which outflows exceeded various threshold levels over multiple time periods, including the worst 3, 5, and 10 days, measured by aggregate net redemptions, in March 2020.

Table 8: Percentage of Fund Days for Institutional Prime Funds above a Given Threshold.

Dates	Average Fund Count	Net Redemption Threshold						
		4%	5%	6%	7%	8%	9%	10%
Worst 3 days	35	48%	38%	36%	31%	23%	20%	15%
Worst 5 days	35	43%	34%	31%	25%	19%	16%	12%
Worst 10 days	35	34%	25%	21%	15%	11%	10%	8%
March 2020	35	19%	14%	11%	8%	7%	5%	4%
5 years Excl. March 2020	37	3.2%	2.2%	1.6%	1.2%	0.9%	0.7%	0.5%

Source: CraneData

Figure 8: Percentage of Fund Days for Institutional Prime Funds above a Given Threshold.



The final net redemption threshold impacts the number of funds that will be required to calculate liquidity fees under both normal and stressed conditions when faced with large outflows. Outflows in excess of the 5% net redemption threshold occur with some regularity even outside of stressed market environments. Accordingly, we consider the extent to which various redemption thresholds were crossed in recent years outside of the March 2020 stress event. We first conduct this analysis at the fund level for each year from 2017 to 2020. Table 9 and Figure 9, using CraneData, report the percentage of funds that, in a given year, would have exceeded a given redemption threshold on at least one day. This analysis helps inform the extent to which funds would have had to calculate a liquidity fee at least once in a given year had the final liquidity fee framework been in place and, thus, reflecting associated fixed costs.

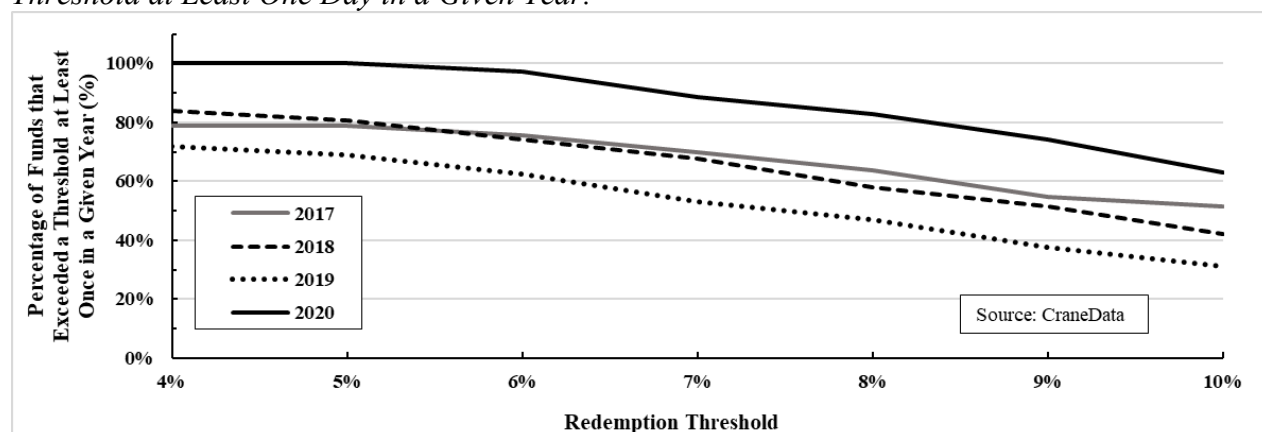
Table 9. Percentage of Institutional Prime Funds That Would Have Exceed the Net Redemption Threshold at Least One Day in a Given Year.

Year	Average Fund	Net Redemption Threshold						
		4%	5%	6%	7%	8%	9%	10%

	Count								
2017	33	79%	79%	76%	70%	64%	55%	52%	
2018	31	84%	81%	74%	68%	58%	52%	42%	
2019	32	72%	69%	63%	53%	47%	38%	31%	
2020	35	100%	100%	97%	89%	83%	74%	63%	

Source: CraneData

Figure 9: Percentage of Institutional Prime Funds That Would Have Exceeded the Net Redemption Threshold at Least One Day in a Given Year.



Next, Table 10 and Figure 10, using CraneData, report the distribution of fund day percentages that would have exceeded a given redemption threshold over 5 years (excluding March 2020). This analysis reflects the distribution of percentages on which the fee would have been charged industry-wide (as a percentage of fund-days over the 5-year period) and, thus, reflects the variable cost associated with crossing the redemption threshold outside of a crisis period when liquidity costs are likely very low or zero.⁶⁵¹ For example, net redemptions exceeded the 5% redemption threshold on 7.1% of fund days during this period.

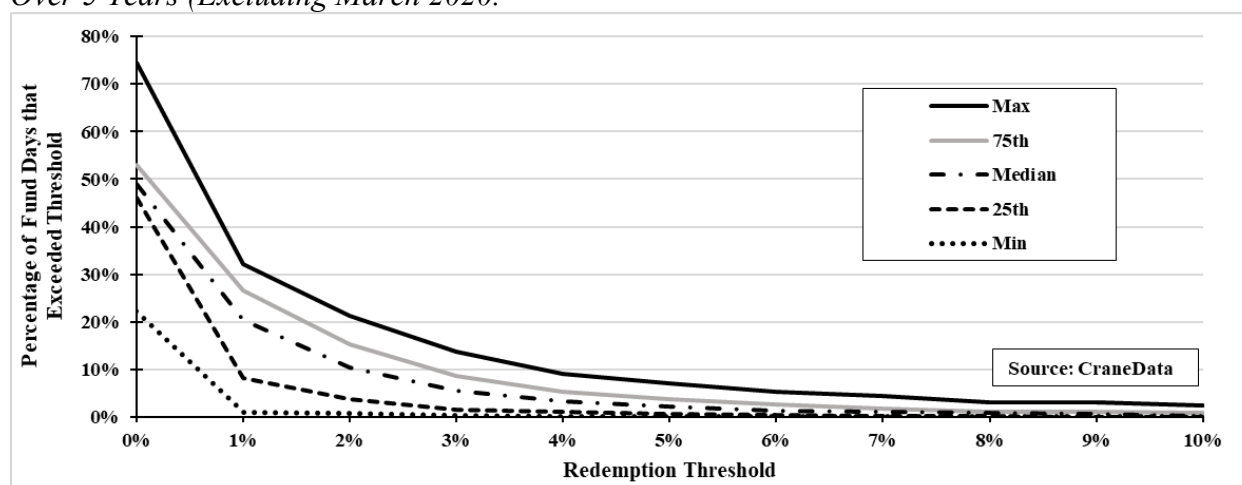
⁶⁵¹ To illustrate the analysis, we observed around 37 funds over 1,228 trading days over five years. We thus have around 45,436 (= 37 x 1,228) fund-day observations. A value on the Max curve (red line) of around 7.1% on the y-axis for a 5% threshold on the x-axis then means that net redemptions exceeded 5% threshold on 7.1% - or 87 (= 7.1% x 1,228) in total - fund days.

Table 10. Distribution of Fund Days Percentages on Which a Fee Would Have Been Implemented Over 5 Years (Excluding March 2020).

Percentile	Net Redemption Threshold										
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
Max	74%	32%	21%	14%	9.0%	7.1%	5.2%	4.4%	3.1%	3.0%	2.4%
75th	53%	27%	15%	8.7%	5.3%	3.8%	2.6%	1.7%	1.1%	1.0%	0.9%
Median	49%	20%	10%	5.5%	3.3%	2.2%	1.3%	1.0%	0.9%	0.5%	0.3%
25th	46%	8.1%	3.7%	1.5%	1.0%	0.5%	0.5%	0.3%	0.2%	0.0%	0.0%
Min	22%	1.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: CraneData

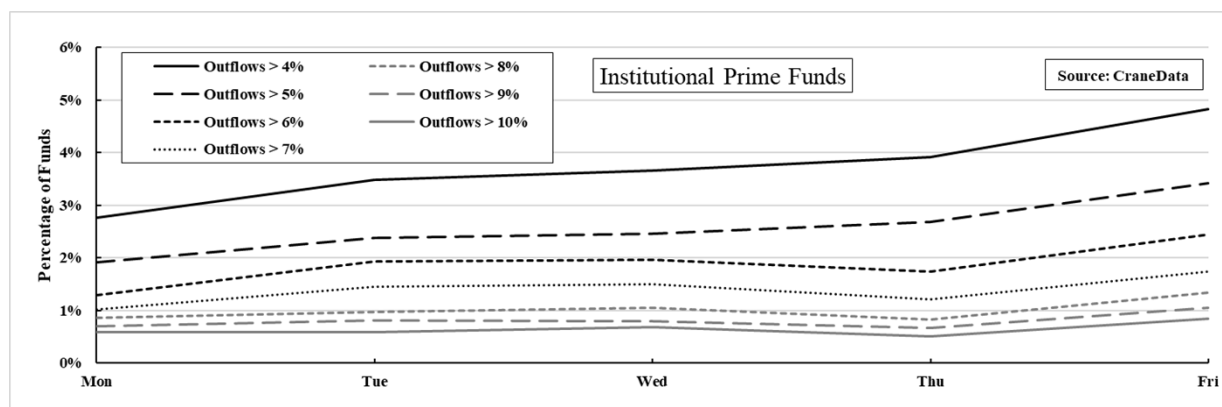
Figure 10: Distribution of Fund Days Percentages on Which a Fee Would Have Been Implemented Over 5 Years (Excluding March 2020).



In addition, large fund outflows may be seasonal. To quantify potential seasonality in fund outflows, we analyzed daily data from CraneData covering outflows out of institutional prime and institutional tax-exempt funds between December 1, 2016, and October 28, 2021.⁶⁵² The discussion below shows that there are significant outflow patterns by day of week and day of month among others. First, institutional prime funds tend to have more large outflows on Fridays, while institutional tax-exempt funds tend to have more large outflows on Thursdays, as can be seen from Figure 11.

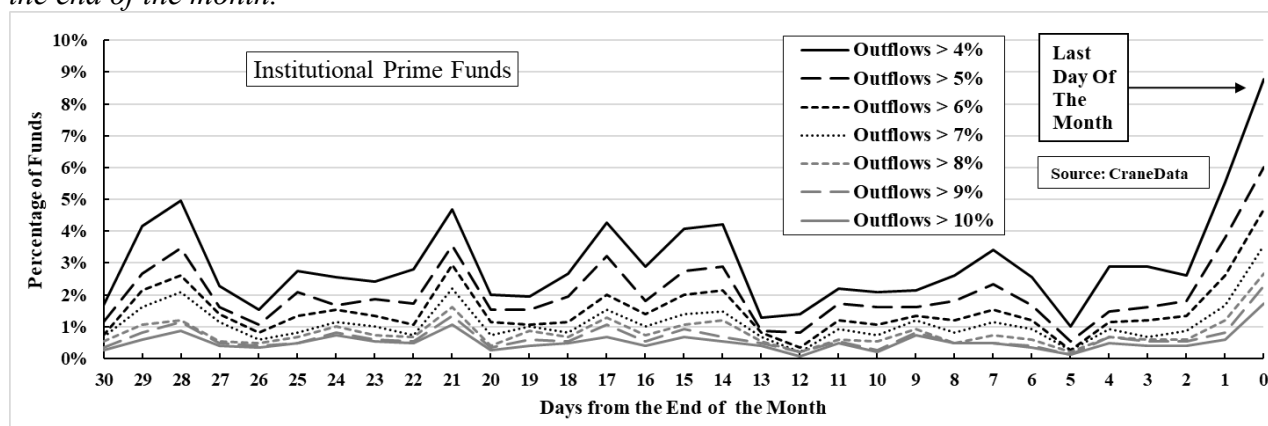
⁶⁵² This analysis uses daily flows reported in CraneData on 1,228 days between Dec. 2016 and Oct. 2021. As of Sept. 2021, CraneData covered 87% of the funds and 96% of total assets under management. Flows at the class level were aggregated to the fund level. Flows of feeder funds were aggregated for an approximation of flows for the corresponding master fund. For the purposes of this seasonality analysis, outflows during Mar. 2020 were omitted, because they may have been driven by stress and the purpose of the analysis is to examine seasonality of routine fund flows under normal market conditions.

Figure 11: Percentage of institutional prime funds with outflows above a given threshold as a function of the day of the week.



Second, Figure 12 below shows that the last day of the month accounts for some of the largest outflows in excess of 5%.

Figure 12: Percentage of funds with outflows above a given threshold as a function of days from the end of the month.



The above patterns are consistent with institutional investors relying on money market funds as a cash management tool (for example, to meet payroll, tax, and other obligations). Moreover, large fund outflows may be at least partly seasonal and unrelated to stress in underlying asset markets. Under the final rule, outflows in excess of 5% would trigger the compliance costs related to the liquidity fee requirement and the market impact factor analysis on each day with large outflows.

As discussed in the prior section, the implementation of liquidity fees is expected to give rise to compliance burdens and other costs on money market funds. These costs may be mitigated by four factors. First, many affected money market funds may already be using bid

prices to strike the NAV. Second, the rule does not require a daily recalculation of market impact factors. As discussed in section II, in order to establish a good faith estimate of the market impact of selling a vertical slice of the fund's portfolio to meet net redemptions, a fund may document its estimates of the effect of selling different amounts of its portfolio securities on each security's price into pricing grids for different market conditions (such as periods of credit stress, liquidity rate stress, interest rate stress, or a combination of such stresses). The fund would refer to the appropriate grid that reasonably approximates current market conditions on days when its net redemptions exceed 5% to identify the market impact for the assumed amount to be sold under the required vertical slice analysis. This may reduce the marginal costs of market impact factor calculations on days when funds experience net redemptions above 5%. Third, as discussed in section II, funds would not be required to perform a security-by-security pricing analysis, and would be able to pool similar securities into categories for purposes of the market impact analysis. Fourth, as discussed in section II, under normal market conditions, the calculated liquidity fee amount generally is likely to be *de minimis*, mitigating the costs to redeeming shareholders on days of predictably large outflows when market conditions are normal and markets impacts (and, thus, liquidity externalities) are near zero.

Finally, the Commission has considered how the net redemption threshold for the mandatory liquidity fees may interact with the final 25% daily and 50% weekly liquid asset requirements. Specifically, Table 11 below illustrates a theoretical relationship between constant daily outflow and the implied weekly outflow after 5 days. If a fund experiences 5 consecutive days of 5% outflows, it would experience cumulative 23% outflows by the end of the week. By contrast, if a fund experiences 5 consecutive days of 10% outflows, it would experience cumulative 41% outflows by the end of the week. While the final 50% weekly liquid asset requirement could be enough to cover the outflows for that week, depending on the maturity structure of weekly liquid assets, the fund may not have enough liquidity to cover redemptions over the course of the week. In that case, the liquidity fee may be useful to recapture liquidity

costs and dis-incentivize any redemptions driven by a first-mover advantage as the wave of redemptions grows and the markets come under stress. Notably, this is a numerical example, and future patterns of redemptions under stress and portfolio maturity structures of affected funds, particularly the maturity structure of weekly liquid assets, as well as the way in which investors and money market funds respond to various provisions of the final rule, may influence the ability of funds to absorb redemptions out of daily or weekly liquidity. However, this analysis suggests that a higher redemption threshold for liquidity fees may reduce the amount of dilution costs recaptured by funds during redemption waves.

Table 11: Cumulative Weekly Outflows after 5 Days of Outflows.

Daily Outflows	Cumulative Weekly Outflows
4%	18%
5%	23%
6%	27%
7%	30%
8%	34%
9%	38%
10%	41%

Overall, the 5% net redemption threshold may result in some instances of the imposition of fees during normal market conditions, and funds would be required to estimate liquidity fees when the liquidity costs of large redemptions are very small. However, the 5% net redemption threshold may enhance the benefits of liquidity fees for non-transacting investors during redemption waves and under stressed conditions, which may serve to reduce self-fulfilling run incentives, protect non-transacting investors, and improve the resilience of money market funds.

The Commission proposed a swing pricing requirement, under which, if net redemptions exceeded 4% divided by the number of pricing periods per day, the swing factor would be required to include not only the spread costs and other transaction costs, but also good faith estimates of the market impact of net redemptions. The Commission received comments stating

that the threshold could act as a “bright line” that could actually lead to runs.⁶⁵³ While the final amendments replace the proposed swing pricing requirement with a liquidity fee framework and utilize a higher 5% net redemption threshold for the imposition of liquidity fees, the Commission has considered whether such a threshold in the liquidity fee framework could lead to run risk.

However, several aspects of the final rule are intended to mitigate any such incentives. The net redemption threshold for mandatory liquidity fees is based on same-day fund flows. As discussed in the prior section, we believe that the net redemption threshold is less susceptible to run risk than a weekly liquid asset threshold. Moreover, because mandatory liquidity fees are based on same-day net redemptions, an investor’s decision to redeem directly influences the probability that a liquidity fee will be assessed to their redemption. Further, to the degree that institutional investors expect other investors have similar expectations of net redemptions from a fund, the incentive to strategically redeem shares ahead of other investors is diminished. Finally, under the final rule and as discussed in greater detail in section II.B and section IV.C.4.b.vi, funds may assess discretionary liquidity fees on days when net redemptions are at or below the 5% threshold. To the degree that fund boards (or their delegates) determine to apply discretionary fees, this element of the final rule may further reduce the ability of redeeming investors to strategically redeem ahead of the likely imposition of a liquidity fee. However, we recognize that funds may face disincentives to apply these liquidity fees and money market fund boards have not historically applied liquidity fees when they had the discretion to do so, which may reduce the effectiveness of this mitigating factor.

*ii. Fee Threshold: Using Fund Flows Received Within a
Reasonable Period After the Last NAV Strike Each Day*

In response to the proposed swing pricing requirement for money market funds, some commenters discussed difficulties in obtaining timely flow information to enable same-day NAV

⁶⁵³ See, e.g., IIF Comment Letter; Federated Hermes Comment Letter I.

adjustments. While the final rule imposes a liquidity fee framework, rather than swing pricing, comments concerning flow timing and flow aggregation practices by money market funds informed the design of the redemption threshold for the liquidity fee framework. Specifically, some commenters indicated that institutional money market funds that offer same-day settlement may receive some flows overnight that will settle on a T+1 basis, and thus some of these funds do not have final order flow information until the following morning. One commenter stated that one of its former institutional prime funds offered same-day settlement and therefore imposed order cut-off times, and these cut-off times were the same as the NAV strike time.⁶⁵⁴ Another commenter stated that its privately offered money market funds, in which other funds invest, do not have sufficient flow data because the flow data from the underlying investing funds is only available on a T+1 basis.⁶⁵⁵ Another commenter stated that, over a representative period, one of its institutional prime funds received 35.7% of trade notices after the fund's NAV calculation time of 3 p.m. ET, with these trades receiving that day's NAV, but settling on a T+1 basis.⁶⁵⁶ A few commenters requested that the Commission provide guidance that if a NAV is adjusted based on reasonable inquiry and estimates, a later determination that a fund did not have net redemptions for the pricing period would not constitute a NAV error.⁶⁵⁷

As discussed in section II, institutional money market funds often impose order cut-off times to be able to offer same-day settlement, which requires that funds complete Fedwire instructions before the Federal Reserve's 6:45 p.m. ET Fedwire cut-off time. Therefore, many institutional funds would have a sizeable portion of their daily flows within a reasonable period of time after the last pricing time of the day. However, complete flow information may not always be available to affected money market funds on the same day, and the availability of flow

⁶⁵⁴ See, e.g., Fidelity Comment Letter.

⁶⁵⁵ See, e.g., Capital Group Comment Letter.

⁶⁵⁶ See, e.g., Federated Hermes Comment Letter II.

⁶⁵⁷ See, e.g., Capital Group Comment Letter; IDC Comment Letter.

information may depend on fund intermediaries, how the fund set up custodian and omnibus accounts, and the timing for batching of orders and transmitting them, among other things. For example, funds may receive cancellations, or corrections of intermediary or investor errors, which modify the flows. In addition, funds or some fund share classes may settle some transactions on T+1 and still receive flow information from intermediaries that is eligible to receive the NAV as of the last pricing time. Thus, there will be circumstances in which the flow information a fund uses to determine whether it has crossed the net redemption threshold does not reflect the fund's full flows for that day.

As discussed in section II.B.2.a, funds would be able to use flows received within a reasonable period after the last pricing time to determine whether the fund has crossed the 5% threshold. To the extent that a fund received additional flow information after determining that it crossed the 5% threshold, but before applying a liquidity fee, the fund could take the additional flow information into account when determining the amount of the liquidity fee. This element of the final liquidity fee framework will enable funds to assess liquidity fees without requiring costly changes to intermediaries' technological systems and order batching, validation, and transmission practices, earlier order cutoff times, fund distribution networks, or the reduction in the number of NAV strikes a day funds are able to offer.

Moreover, as a result of this element of the final rule, liquidity fees will be assessed based on same-day outflows, rather than the previous day's flows. Information about historical flows may be generally available in, among others, subscription databases and other data feeds, while same-day flows are not predictable by investors at the time they place their orders. This reduces the risk that investors would be able to predict whether a liquidity fee will not apply on a given day and time redemptions accordingly to avoid the liquidity fee. In addition, under the final rule, redeemers will be charged for the liquidity costs of their redemptions, rather than for the costs of redemptions made by other investors on the previous day. Finally, this element of the final rule may allow funds to recapture more of the dilution costs of large redemptions on a given day,

regardless of whether a fund experiences a wave of redemptions or individual days of large redemptions. Thus, this element of the final rule may enhance the benefits of the liquidity fee framework for dilution costs and run incentives.

Fund flow information that is available within a reasonable period after the last pricing period of the day may under or overestimate ex post net redemptions on a given day. The direction and magnitude of the difference between ex ante estimated fund flows and ex post fund flows would depend on intraday redemption and subscription patterns of fund investors, a fund's reliance on various distribution channels, the timing of intermediaries' batch processing orders, including omnibus accounts, and the propensity of intermediaries and investors to preview delayed redemptions or subscriptions to fund managers. Thus, this element of the final rule may result in some instances of liquidity fees not being charged based on available flows when they would have been based on ex post flows, and vice versa. While institutional investors may theoretically have incentives to delay the submission of large redemption orders after the NAV is struck to reduce the likelihood that a liquidity fee is charged, an institutional investor must submit its orders before the fund calculates its NAV to receive that price.⁶⁵⁸ In addition, intermediaries face no such incentives. Crucially, intermediaries commonly have cutoff times to receive same day settlement, and it is intermediary technological systems and flow aggregation and transmission practices that may drive when funds receive orders. This may reduce the risk of strategic delays in the submissions of redemption flows. Moreover, as discussed in the previous sections, the Commission expects that any liquidity fees under normal market conditions will be very low, further reducing incentives for strategic order flow delays. Finally, as discussed in greater detail below, the final rule will also allow funds to charge discretionary fees even if same day outflows are below the 5% threshold, further reducing certainty about the imposition of

liquidity fees around the threshold and mitigating the risk of strategic redemptions or order flow delays.

The final rule will require affected funds to apply a liquidity fee to all shares redeemed on the day the mandatory liquidity fee is triggered, which may impose some costs on funds currently offering multiple NAV strikes per day. Specifically, investors may redeem in earlier pricing periods, before the fund knows that it has crossed the net redemption threshold triggering the liquidity fee requirement for the day. In such circumstances, funds offering multiple NAV strikes would be required to develop a method for applying the fee to shares redeemed in earlier pricing periods on that day. Section II.B.2.a discusses various approaches funds may take to address this issue. In addition, some funds may choose to reduce the number of NAV strikes they offer or no longer offer multiple NAV strikes for operational reasons. Depending on how different funds respond to these amendments, redeeming investors may experience a reduction in their access to liquidity relative to the current baseline. However, the mandatory liquidity fees are unlikely to result in a redeeming investor being unable to access same-day liquidity.

iii. Fee Amount: Costs of Selling the Pro-Rata Share of Fund Holdings

The costs and benefits of the final rule's requirements concerning the fee amount are informed by two sets of considerations.

First, liquidity fees charged by a money market fund are intended to make investors indifferent between selling shares in the fund and selling the underlying assets if they were held by investors directly. The liquidity fee is not intended to disproportionately discourage sales out of money market funds relative to underlying assets, but rather to reduce dilution that may arise out of the fund structure.

Second, smaller fees may preserve a first-mover advantage in redemptions out of money market funds suffering from short-term stress, while larger fees may lock investors into failing funds if underlying portfolio holdings do not retain their value in the medium and long term. If a

liquidity crunch is temporary and underlying fund holdings retain their value in the medium and long term (such as during March 2020, when issuers were not defaulting and redemptions were driven by a dash for cash), funds lose value primarily when they sell securities into stressed markets to meet redemptions. If, however, underlying fund holdings lose their value in the medium- and long-term, investors may run because of uncertainty about the extent of their fund's exposures to defaulting assets (such as during the 2008 financial crisis). To the degree that money market fund investors face uncertainty about the underlying source of stress, they have an incentive to redeem in a flight to safety. In this setting, a fee that makes money market fund investors indifferent between redeeming or remaining in the fund is ex-post efficient in cases of liquidity stress, but ex-post inefficient in the latter scenario, as it is more likely to incentivize investors to stay in a failing fund. In sum, higher fees may slow redemptions out of money market funds, but the ex-post efficiency of such effects may depend on the nature of the crisis.

Under the final amendments, if an affected fund experiences net redemptions of more than 5% on a given day, it would be required to assess a liquidity fee that includes not only the spread costs and other transaction costs, but also good faith estimates of the market impact of sales to meet net redemptions. To the extent funds are able to estimate or forecast market impact costs accurately, the requirement to assess the market impact of sales to meet net redemptions when daily net redemptions exceed 5% would result in redeeming investors bearing not only the direct spread and transaction costs from their redemptions, but also the impact of their redemptions on the market value of the fund's holdings. This may allow shareholders remaining in the fund to capture more of the dilution cost of redemptions, which includes not only direct transaction costs and near-term price movements, but the impact of the redemptions on the fund's portfolio as a whole. However, the magnitude of this benefit may be reduced by the fact

that the final amendments would only require the imposition of liquidity fees when an affected fund's daily net redemptions exceed 5%.⁶⁵⁹

Importantly, the mandatory liquidity fee framework will require funds to calculate the liquidity fee as if the fund were selling the pro-rata share of all of the fund's holdings, rather than, for example, assuming the fund would absorb redemptions out of daily liquid assets. If a fund were to absorb large redemptions out of daily or weekly liquid assets – and their ability to do so may be enhanced by the final amendments' increased liquidity requirements – the immediate transaction costs imposed on the funds would be lower. However, the fund would have less remaining daily and weekly liquidity and transacting shareholders would be diluting remaining investors in a manner not captured by estimated transaction costs. Thus, this aspect of the final amendments will make redeeming investors bear not just the immediate costs of covering redemptions, but also the costs of rebalancing the fund portfolio to the pre-redemption levels of liquid asset holdings.

However, this element of the final rule will require redeeming shareholders to bear liquidity costs larger than the direct liquidity costs they may impose on the fund. Some commenters stated that this approach is fundamentally inconsistent with how money market funds operate because, given the nature of money market fund holdings, money market funds typically absorb redemptions out of daily and weekly liquid assets.⁶⁶⁰ However, assets other than daily and weekly liquid assets – such as municipal securities and commercial paper that do not mature in the near term – may become illiquid in times of stress and may need to be held to maturity by the fund. Thus, the realized transaction costs of most redemptions may be zero as funds absorb them out of daily liquidity, while the true liquidity costs of redemptions may consist of the depletion of daily and weekly liquidity during times of stress (when rebalancing is

⁶⁵⁹ See section IV.C.4.b.i. and section IV.D.4. for a quantitative analysis of the frequency with which affected money market funds may be expected to exceed the 5% daily net redemption threshold.

⁶⁶⁰ See, e.g., ICI Comment Letter; State Street Comment Letter.

especially expensive) rather than the sale of illiquid assets. While there is a lack of research on portfolio rebalancing by money market funds, some research in a parallel open end fund context shows that funds may optimally rebuild cash buffers after outflows to prevent future forced sales of illiquid assets.⁶⁶¹ To the degree that money market funds may also seek to rebalance liquid assets after large outflows, this may suggest that liquidity costs should be measured using a vertical slice assumption due to the cost of rebuilding liquidity after redemptions that deplete liquid assets.

To the degree that this aspect of the final amendments could impose a cost on redeemers that is larger than the realized trading cost of their redemptions, it may reduce the attractiveness of affected money market funds to some investors. Importantly, when direct trading costs of redemptions are zero because redemptions are absorbed out of weekly liquid assets, redemptions still dilute non-transacting investors by leaving the fund depleted of liquidity. This aspect of the final amendments would require redeemers to internalize a greater share of the liquidity externalities that they impose on non-transacting investors. In addition, liquidity costs paid by redeemers under the liquidity fee requirement would flow back to remaining shareholders, disincentivizing redemptions and reducing the first-mover advantage during times of stress. This may attract longer-term investors into affected money market funds.

The Commission has also received comments that market impact factors may be too difficult or costly to estimate and that this may give rise to errors in assessed fees.⁶⁶² As discussed in section II, the final rule is tailored to address these concerns and reduce such costs in six ways. First, section II provides guidance on one method funds could use to make a good faith estimate of the costs of selling a vertical slice of the fund's portfolio to meet net redemptions using pricing grids relying on historical data. Second, consistent with the proposal,

⁶⁶¹ See, e.g., Yao Zeng, *A Dynamic Theory of Mutual Funds and Liquidity Management* (ESRB working paper no. 2017/42, Apr. 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3723389 (retrieved from SSRN Elsevier database).

⁶⁶² See, e.g., ICI Comment Letter.

the final rule permits a fund to estimate liquidity costs for each type of security with the same or substantially similar characteristics, rather than analyze each security separately. Third, as discussed in section II and consistent with the proposal, it would be reasonable to assume a market impact of zero for the fund's daily and weekly liquid assets, since a fund could reasonably expect such assets to convert to cash without a market impact to fulfill redemptions (e.g., because the assets are maturing shortly).⁶⁶³ Fourth, since market impact costs of a transaction can be difficult to estimate with certainty before a transaction occurs, the rule requires good faith estimates of these costs. Fifth, the final rule provides that if an institutional fund makes a good faith estimate that the amount of the liquidity fee would be below one basis point of the value of the shares redeemed, then the fund is not required to charge a liquidity fee.⁶⁶⁴ Sixth, where a fund is unable to produce good faith estimates of the costs of selling a vertical slice, for example, when underlying security markets are frozen and transactions are scarce, the fund would use a default liquidity fee, as discussed in greater detail in the section that follows.

iv. Fee Amount: Default Fee when the Costs of Selling the Pro-Rata Share of Fund Holdings Cannot be Calculated

As a baseline matter, rule 2a-7 includes a default liquidity fee provision for non-government money market funds with weekly liquid assets falling below 10% of their total assets. Under the final rule, if affected money market funds are unable to estimate the costs of selling the pro-rata share of fund holdings in good faith and supported by data, they would assess a default liquidity fee of 1%.

In the swing pricing context, the Commission received comments about difficulties in calculating transaction costs and market impact factors under tightly compressed timelines.⁶⁶⁵ In

⁶⁶³ See Proposing Release, *supra* note 6, at section II.B.1.

⁶⁶⁴ Amended rule 2a-7(c)(2)(iii)(D).

⁶⁶⁵ See, e.g., SIFMA AMG Comment Letter; BlackRock Comment Letter; Capital Group Comment Letter.

addition, one commenter referenced a lack of, or narrow, bid-ask spreads, making calculation particularly difficult.⁶⁶⁶ Another commenter questioned the feasibility of estimating market impact using the vertical slice approach.⁶⁶⁷

While the final rule imposes a liquidity fee framework, rather than a swing pricing requirement, the Commission has considered how difficulties in calculating the costs of selling the pro-rata share of fund holdings may impact operational feasibility of the liquidity fee requirement. Specifically, market impact factors and spread costs may be difficult to estimate precisely when many of the assets money market funds hold lack a liquid secondary market. This effect may be particularly acute in times of stress in short-term funding markets when transaction activity may freeze and trade and quotation data necessary for an accurate estimate of market impact factors may not be available. The ability of affected money market funds to assess a default liquidity fee under the final rule may enable affected money market funds to overcome these operational difficulties. Thus, the default liquidity fee may serve as an additional tool for affected money market funds facing redemption waves, and may reduce dilution of non-transacting shareholders and the first-mover advantage in redemptions.

The default liquidity fee is fixed at 1% and does not vary depending on the size of redemption flows, conditions in short-term funding markets, or characteristics of a fund's portfolio holdings. Thus, the default liquidity fee may, under some circumstances, exceed the liquidity cost of redemptions, which poses a cost to redeemers; or fall short of accurately capturing the liquidity cost of redemptions, thereby failing to recapture the dilution costs of redemptions faced by non-transacting shareholders. However, to the degree that discounts experienced by ultra-short bond exchange traded funds in the peak market stress of March 2020 may serve as a proxy for liquidity costs of money market funds, the liquidity fee is generally

⁶⁶⁶ See, e.g., BlackRock Comment Letter.

⁶⁶⁷ See, e.g., ICI Comment Letter.

consistent with the range of money market fund liquidity costs during the same period.⁶⁶⁸

Importantly, the default liquidity fee is not intended to precisely measure the liquidity cost of redemptions, but may enhance the ability of affected funds facing large redemptions to manage their liquidity in times of stress, reduce dilution costs borne by non-transacting investors, and decrease run risk. The final rule does not alter the amount of the default liquidity fee currently in effect under rule 2a-7, but provides for a different scope of application of the default fee that is not tied to publicly observable levels of weekly liquid assets.

To the degree that investors may perceive the default liquidity fee to be large, they may seek to redeem out of affected money market funds earlier during the onset of stress, which may accelerate redemptions during milder periods of stress in short-term funding markets. However, affected money market funds may have strong reputational incentives to compete on fees and may limit the application of the default fee to rare times of severe market stress. Importantly, the baseline application of the default fee under rule 2a-7 is tied to a fund's publicly observable level of weekly liquid assets, whereas liquidity fees under the final rule are triggered by same day net redemptions and a fund's assessment of the liquidity costs of such redemptions. This is expected to reduce run risk in affected funds relative to the current baseline. Crucially, any liquidity fee, including the default fee, accrues to the fund's non-transacting shareholders and enhances fund performance, which can incentivize some investors to invest in affected money-market funds, particularly during times of stress.

v. Fee Caps

The final rule would not cap mandatory liquidity fees triggered by the 5% net redemption threshold. Under the final rule, if an affected fund's good faith estimate of the liquidity cost of large redemptions, including spread and other transaction costs as well as market impact factors

⁶⁶⁸ See Anadu, Kenechukwu, et al., *Swing Pricing Calibration: A Simple Thought Exercise Using ETF Pricing Dynamics to Infer Swing Factors for Mutual Funds* (Jan 21, 2022), available at <https://ssrn.com/abstract=4014689> (retrieved from SSRN Elsevier database).

of the hypothetical sale of a pro-rata share of portfolio holdings, exceeds, for instance 2%, that larger fee would be assessed to redeeming investors on days on which a fund experiences net redemptions in excess of 5%. This element of the final rule will allow funds to recapture a greater share of the dilution costs of large redemptions and may reduce corresponding run risk, especially in times of stress.

Some commenters suggested that a liquidity fee framework should include a cap on liquidity fees,⁶⁶⁹ for example, because a cap could provide investors with confidence that a fee would not exceed a specific threshold.⁶⁷⁰ We acknowledge that the possibility of a large uncapped liquidity fee being applied to redemptions may reduce the attractiveness of affected money market funds for some investors. However, the possibility of large uncapped fees may also attract other investors into money market funds because non-transacting shareholders benefit from larger liquidity fees being charged to redeemers.

Commenters indicated that it is difficult to imagine any scenario where the cost of liquidity would exceed 2%, given the nature of money market fund portfolio holdings and limits on weighted average maturity and weighted average life, as well as historical price movements within affected funds.⁶⁷¹ We agree that funds are unlikely to charge fees in excess of 2% for three primary reasons. First, given the portfolio composition of affected money market funds, market impact factors are extremely unlikely to exceed 2% even under times of severe stress. For example, as discussed in section IV.C.4.a, during the market stress of March 2020, commercial paper spreads generally ranged between 20 and 50 basis points across maturities, far lower than the 2% level. As another example, one commenter indicated that their transaction costs during

⁶⁶⁹ See, e.g., ICI Comment Letter; Morgan Stanley Comment Letter; SIFMA AMG Comment Letter; *see also* Federated Hermes Board Comment Letter.

⁶⁷⁰ See, e.g., Federated Hermes Comment Letter I; Western Asset Comment Letter.

⁶⁷¹ *Id.*

the crisis week of September 2008 were less than 0.6%.⁶⁷² Second, if short-term funding markets are under severe stress, there may be little transaction activity and funds may be unable to provide good faith estimates of the costs of selling the pro-rata slice of the fund portfolio, leading them to charge the default fee of 1%. Third, if funds are able to provide good faith estimates, but there is significant uncertainty about the costs of the vertical slice, for example, during severe stress, funds may face incentives from private party litigation to charge the default fee.

Thus, large liquidity fees (potentially in excess of 2%) are likely to be charged only when funds do not have sufficient liquid assets to absorb redemptions, are unable to roll down assets into weekly liquid assets given expected future outflows, and have transaction data from liquidating portfolio securities to support a higher fee. If a fund board's (or its delegate's) good faith estimates of liquidity costs do exceed 2%, then the lack of a cap for mandatory liquidity fees will allow funds to recapture more of the dilution of redemptions and manage liquidity to meet future redemptions. This aspect of the final rule may provide affected funds with flexibility to impose larger fees in crisis conditions when liquidity costs are high, which may enhance their resilience to stress.

vi. Discretionary Fees

Some commenters suggested that fund boards should have discretion to impose liquidity fees when in the best interest of the fund and its investors.⁶⁷³ The final amendments retain a discretionary liquidity fee provision, allowing non-government funds to charge discretionary liquidity fees when the majority of the fund board of directors (or its delegate) determine it to be in the best interest of the fund. The discretionary liquidity fee provision provides more discretion to fund boards (or their delegates) for determining when to impose fees and in what amount in

⁶⁷² See, e.g., Comment Letter of Fidelity Investments on File No. S7-03-13 (Apr. 22, 2014), available at <https://www.sec.gov/comments/s7-03-13/s70313-339.pdf> (Exhibit 4). Importantly, this is an estimate of actual transaction costs incurred by the market participant and does not include market impact or the vertical slice assumption.

⁶⁷³ See, e.g., ICI Comment Letter; Schwab Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Federated Hermes Board Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Americans for Tax Reform Comment Letter.

comparison to the mandatory liquidity fee provision. While this discretion is generally consistent with the baseline, the final rule removes the regulatory weekly liquid asset threshold, which created incentives to redeem as funds approached the regulatory weekly liquid asset threshold.

This aspect of the final rule may involve several benefits. First, it may provide a broader scope of money market funds, including retail and government funds, flexibility in using liquidity fees as an anti-dilution tool.⁶⁷⁴ Moreover, it may allow institutional prime and institutional tax-exempt funds to charge liquidity fees earlier in the redemption wave or when liquidity costs of even smaller redemptions are particularly high. Thus, it may enhance the ability of money market funds to manage their liquidity and protect non-transacting shareholders by reducing the dilution costs of redemptions that they bear. Second, it may reduce the ability of redeeming investors to predict whether a liquidity fee would apply on any given day and strategically time redemptions around the likely application of liquidity fees. To the degree that affected money market funds will compete on liquidity fees and may face collective action problems, discretionary liquidity fees may be infrequently applied, reducing the above benefits of this element of the final amendments.

Since liquidity fees charged to redeemers benefit non-transacting shareholders and may enhance reported fund performance, some fund managers may be incentivized to frequently charge discretionary liquidity fees. However, this incentive may be dampened or altogether outweighed by competitive pressures on reported fees and the sensitivity of fund flows to fees. In addition, the frequent assessment of discretionary fees would increase the variability of realized returns for redeemers and reduce the attractiveness of such funds for investors that rely on money market funds for cash management, which can create a counterbalancing market disincentive to the frequent application of discretionary fees. Moreover, the final rule would cap discretionary fees at 2%, which may reduce the ability of affected money market funds to

⁶⁷⁴ Like the current rule 2a-7, a government money market fund may choose to rely on the ability to impose liquidity fees. *See* section II.

overcharge redeemers for liquidity costs. Finally, the final rule requires fund boards or a delegate overseen by the board to make a determination that it is in the best interest of shareholders to assess such a fee.

5. Amendments Related to Potential Negative Interest Rates

As discussed in the proposal, in the event stable NAV funds begin to experience negative yields, they will be able to convert to a floating NAV.⁶⁷⁵ As modified in this release, funds also will be able to engage in share cancellation (sometimes referred to as reverse distribution mechanism, or “RDM”) in the event of negative yields. Funds engaging in share cancellation would be required to comply with specified conditions in the final rule, including that the fund provide timely, concise, and plain-English disclosure to investors.

Allowing stable NAV funds to use a reverse distribution mechanism in the event of negative fund yields would reduce NAV fluctuations in a negative yield environment, which may preserve the use of stable NAV funds for sweep accounts. In the event money market fund yields turn negative, this amendment may, thus, allow more types of investors to continue to use these products than would be the case if the rule required all stable NAV money market funds to convert to a floating NAV. The Commission has received a number of comments in support of providing the flexibility of stable NAV funds to use an RDM or similar mechanism, in addition to the proposed conversion to a floating NAV.⁶⁷⁶ The Commission also recognizes that an RDM is economically equivalent to a floating NAV, and that many investors may prefer a stable NAV.

As discussed in section II, under an RDM, investors would observe a stable share price but a declining number of shares for their investment when a fund generates a negative gross

⁶⁷⁵ As discussed in section V.B, the Commission estimates the total annual costs attributable to the information collection requirements in the amendments allowing share cancellation will be \$969,722 for all affected funds. This cost estimate includes both initial and ongoing costs with the former being amortized over three years.

⁶⁷⁶ *See, e.g.*, ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Allspring Funds Comment Letter; Fidelity Comment Letter; BNY Mellon Comment Letter; State Street Comment Letter; Sen. Toomey Comment Letter; Americans for Tax Reform Comment Letter; Dechert Comment Letter; CCMR Comment Letter; IDC Comment Letter.

yield. This may decrease the transparency and salience of negative fund yields to investors, particularly for less sophisticated retail investors.⁶⁷⁷ Importantly, many stable NAV funds (government funds) are offered to a mix of more sophisticated institutional and retail clientele. This may give rise to informational asymmetries about the performance of the same stable NAV funds across investors and reduce comparability of performance across stable NAV funds. Crucially, these informational asymmetries may be mitigated by the final rule's requirement that stable NAV funds seeking to use an RDM provide timely, concise, and plain-English disclosures, including in prospectuses and in account statements or in a separate writing accompanying the account statements. While stable NAV funds seeking to use an RDM would bear costs of producing such disclosures, they would only choose to do so if the costs of disclosures arising out of the use of an RDM are lower than the costs of floating the NAV. Overall, as discussed in section II, investors may benefit from the ability to continue to invest in stable NAV funds when interest rates are negative, and the required disclosures may help inform investors about differences between an RDM and a floating NAV.

In contrast with the proposal, the final amendments do not require stable NAV money market funds to keep records identifying which intermediaries they were able to identify as being able to process orders at a floating NAV and to no longer transact with those intermediaries who are not able to process orders at a floating NAV. This aspect of the final rule obviates the need for intermediaries to upgrade their systems if they are unable to process transactions in stable NAV funds at a floating NAV. This may avoid disruptions to distribution networks of stable NAV funds if some of their intermediaries would be unable or unwilling to upgrade systems to process transactions at a floating NAV.

The magnitude of these economic effects may be significantly attenuated by two factors. First, negative interest rates have not occurred in the United States, and persistent gross negative

⁶⁷⁷ See, e.g., Northern Trust Comment Letter; CFA Comment Letter.

yields may be unlikely to occur.⁶⁷⁸ Hence, money market funds are not currently implementing RDMs and both the benefits and the costs of these amendments may not materialize. Second, stable NAV funds may not experience the same magnitude of redemptions observed in public institutional prime and institutional tax-exempt funds, for example in March 2020.⁶⁷⁹ Notably, in the long run, the initial shock of negative rates that leads to redemptions from money market funds might reverse due to the lack of alternative vehicles to store cash for a short term.

6. Disclosures

a. Benefits and Costs of the Prompt Notice of Liquidity Threshold

Events on Form N-CR and Board Reporting

The final amendments will require money market funds to file a Form N-CR report whenever a fund has invested less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets.

As a baseline matter, daily and weekly liquid assets are currently required to be disclosed on fund websites on a daily basis. Relative to that baseline, the primary benefits of the final Form N-CR reporting requirement may be in providing additional information about the circumstances of a fund's significantly reduced liquidity levels. Information about the circumstances of a fund's significantly reduced liquidity levels may help investors better analyze a fund's liquidity management strategies and assess risks of dilution. The Commission has received comments that public reporting of liquidity threshold events can increase transparency of money market fund liquidity management practices to investors and may help increase the salience of a fund's daily and weekly liquid assets to investors, especially to less active and less sophisticated investors.⁶⁸⁰

⁶⁷⁸ The weighted average maturity (weighted average life) of money markets funds must be 60 (120) days or less, meaning it may take several weeks before securities with a positive yield mature and gross yields turn negative.

⁶⁷⁹ See, e.g., ICI Comment Letter; Morgan Stanley Comment Letter.

⁶⁸⁰ See, e.g., CFA Comment Letter; Better Markets Comment Letter.

Some commenters suggested this reporting should be confidential.⁶⁸¹ As discussed in section II, we believe investors would benefit from having contextual information to understand the cause of a fund's declining liquidity, which may facilitate their assessment of a fund's risks and ability to meet redemptions. This requirement may enhance transparency about money market fund liquidity during times of stress.

Publication of notices surrounding liquidity threshold events may inform investors about the reasons behind the threshold event. To the degree that some funds' liquidity threshold events may be indicative of persistent liquidity problems or mismanagement of liquidity risk, and to the extent that notices may better inform investors about such causes (relative to baseline website disclosures of liquidity levels), publication of such notices may trigger investor redemptions out of the most distressed funds. While it is difficult to predict investor behavior, the final disclosure requirements may reduce information asymmetries between investors and funds about their liquidity management, and would provide funds with liquidity fees as a tool to manage redemptions, such that redeemers would be charged for the true liquidity cost of their redemptions. In addition, funds with lower weekly and daily liquid assets would charge higher fees due to higher market impact costs, and the liquidity fee under the vertical slice assumption would charge redeemers the liquidity costs they impose on the fund, further dis-incentivizing strategic redemptions.

The final amendments will also require money market funds to notify their boards when they drop below the 12.5% daily and 25% weekly liquidity asset thresholds, as discussed in section II. Since the final amendments will require that liquidity threshold events are reported on Form N-CR, funds will likely routinely notify the board of such events without an explicit board notification requirement. One commenter noted that the current policies and procedures of its

⁶⁸¹ See, e.g., ICI Comment Letter; Federated Hermes Comment Letter I; Invesco Comment Letter; Schwab Comment Letter (expressing support for ICI's perspective); SIFMA AMG Comment Letter; Bancorp Comment Letter.

members typically include provisions to report to the board at specified levels of liquidity, thus suggesting that the proposed board reporting is already occurring in practice.⁶⁸² To the degree that board reporting is already a part of best practices for fund managers, this would reduce the magnitude of the benefits and costs of this final requirement. However, to the degree that some fund boards may not be notified of some events subject to Form N-CR reporting or of significant declines in liquidity, the board notification requirement could enhance the oversight of fund boards over liquidity management, particularly during periods of stress.

The final amendments to Form N-CR will impose direct compliance costs by imposing reporting burdens discussed in section V.D.⁶⁸³ While we acknowledge that Form N-CR filers may bear some additional reporting costs as a result of the amendments, as one commenter suggested, we believe these costs will generally be related to funds adjusting their systems to a different data language. Due to economies of scale, such costs may be more easily borne by larger fund families. In addition, the prompt notice requirement may give rise to two sets of costs. First, the requirement may lead fund managers to manage their portfolios specifically to try to avoid a reporting event, rather than in a way that is most efficient for fund shareholders. Second, this aspect of the final rule may result in money market fund managers spending compliance resources on amending Form N-CR to describe the circumstances of the liquidity threshold event, which may divert managerial resources away from managing redemptions in times of stress. Costs borne by money market funds may be passed along to investors in the form of higher fees and expenses. However, as discussed above, we believe such costs are justified by the promptness of the notice requirement which may enhance Commission oversight and

⁶⁸² See, e.g., SIFMA AMG Comment Letter.

⁶⁸³ As discussed in section V.D, the Commission estimates a total internal time cost of the information collection requirements associated with the amendments to Form N-CR of \$8,244 and total annual external cost burden of \$1,187 for all affected funds.

transparency to investors, incentivize funds to closely monitor their liquidity levels, and ultimately better protect investors.

b. Benefits and Costs of the Form N-MFP Amendments

Final amendments to Form N-MFP will require reporting of certain daily data points on a monthly basis, of securities that prime funds have disposed of before maturity, of the concentration of money market fund shareholders and the composition of institutional money market funds' shareholders, and of additional information about repurchase agreement transactions, among other changes. In addition, we are amending Form N-MFP to require money market funds to report the date on which the liquidity fee was applied and the amount of the liquidity fee applied by the fund.

Broadly, the final amendments to Form N-MFP may make the form more usable by filers, regulators, and investors, and may increase transparency around money market fund activities in three ways. First, the requirement that the funds report daily information about their daily and weekly liquid assets, flows, and NAV will reduce costs of accessing this information relative to the baseline of routinely accessing and downloading information across many fund websites and will provide a long-term repository of this information for all funds. Second, additional information about fund repo activities will enable investors and the Commission to better assess fund liquidity risks and oversee the industry. Third, information about shareholder concentration and composition can help the Commission and investors understand and evaluate potential redemption and liquidity risks.

In addition, the final amendments add disclosure requirements to Form N-MFP to capture information about the relevant funds' use of liquidity fees. These amendments are expected to benefit investors in money market funds by reducing information asymmetries between funds and investors about these funds' liquidity fee practices. Since liquidity fees have not been broadly used by U.S. money market funds, the purpose of the disclosure requirement is, thus, to inform investors about the manner in which affected money market funds implement the

liquidity fee framework. Such transparency may result in greater allocative efficiency as investors with low tolerance of liquidity risk and costs may choose to reallocate capital to money market funds that have lower liquidity risk and costs. In addition, to the degree that uncertainty about the final liquidity fee framework may reduce the attractiveness of affected money market funds to investors, the final amendments requiring disclosures about liquidity fees may reduce information asymmetries between money market funds and their investors, which may dampen those adverse effects.

The final amendments to Form N-MFP will impose initial and ongoing PRA costs, as discussed in section V below.⁶⁸⁴ The Commission continues to believe that money market funds generally already maintain the information they will be required to report on Form N-MFP pursuant to other regulatory requirements or in the ordinary course of business. However, the Commission continues to recognize that affected funds would incur some costs in reporting the information, particularly costs of reporting certain information with more frequency.⁶⁸⁵ Due to economies of scale, such costs may be more easily borne by larger fund families, and costs borne by money market funds may be passed along to investors in the form of higher fees and expenses. The Commission also received comments that the proposed requirements related to reporting of shareholder concentration and composition, as well as lot-level reporting may give rise to privacy and related costs,⁶⁸⁶ as well as predatory trading costs.⁶⁸⁷ As discussed in greater detail in section II, to reduce such costs and concerns, the final rule does not require money market money market funds to disclose the names of beneficial or record owners who hold 5% or

⁶⁸⁴ As discussed in section V.C, the Commission estimates a total annual internal time cost of the information collection requirements of the amendments to Form N-MFP of \$601,002 and total annual external cost burden of \$268,128 for all affected funds. The cost estimates include both initial and ongoing costs with the former being amortized over three years.

⁶⁸⁵ *See, e.g.*, Federated Hermes Comment Letter I.

⁶⁸⁶ *See, e.g.*, CFA Comment Letter; Federated Hermes Comment Letter I; Invesco Comment Letter; Dechert Comment Letter; Schwab Comment Letter; ICI Comment Letter; Bancorp Comment Letter; SIFMA AMG Comment Letter; Northern Trust Comment Letter; CCMR Comment Letter.

⁶⁸⁷ *See, e.g.*, ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; CCMR Comment Letter.

more of the shares outstanding in the relevant class, but only the type of owner, as suggested by some commenters.⁶⁸⁸ In addition, as discussed in section II, the final rule does not impose lot-level reporting requirements.

One commenter opposed the proposal to require liquidity, net asset value, and flow data to be reported as of the close of business on each business day of each month on the basis that it would be unduly burdensome and without any added benefit.⁶⁸⁹ As discussed in the proposal, daily data based on information collected from funds' websites provided by private data vendors can be incomplete, and may have limited utility for Commission oversight and analysis. Moreover, money market funds are, in general, already required to provide on their websites the same data that we are requiring be reported on Form N-MFP. Thus, we believe that the burdens of the proposed changes on money market funds may be small or de minimis. In addition, the final disclosures concerning liquidity fees may create incentives for money market funds to compete on this dimension. Specifically, institutional investors that use institutional money market funds for cash management and prefer lower or zero liquidity fees may move capital from money market funds that charged higher historical fees to funds with lower fees or those that have never charged fees. This may incentivize fund managers to manage their liquidity so as to avoid charging mandatory or discretionary fees. However, while liquidity fees charge redeemers, they benefit investors remaining in the fund, which may make funds actively using liquidity fees more attractive to some investors.

c. Benefits and Costs of Requirements Related to Identifying Information on Form N-CR and Form N-MFP

The final amendments will also require the registrant name, series name, related definitions, and LEIs for the registrant and series on Form N-CR. In addition, the final amendments will require money market funds to report LEIs for the series on Form N-MFP. The

⁶⁸⁸ See, e.g., Federated Hermes Comment Letter I; BlackRock Comment Letter.

⁶⁸⁹ See Federated Hermes Comment Letter I.

LEI is used by numerous domestic and international regulatory regimes for identification purposes.⁶⁹⁰ As such, requiring these additional disclosures could enable data users such as investors and regulators to cross-reference the data reported on Form N-CR with data reported on Form N-MFP and with data received from other sources more easily, thereby expanding the scope of information available to such data users in their assessments.⁶⁹¹ All money market funds are already required to have registrant and series LEIs due to baseline Form N-CEN reporting requirements, as discussed in section II.F. The final amendments to Form N-MFP will also require other information to better identify different types of money market funds, such as amendments to better identify Treasury funds and funds that are used solely by affiliates and other related parties. These amendments will help the Commission and market participants to identify certain categories of money market funds more efficiently. However, the final requirements to improve identifying information may give rise to direct compliance costs associated with amending reporting on Forms N-CR and N-MFP, as discussed in section V.

In addition to the entity identification information (*e.g.*, registrant name, series name, related definitions, and LEIs) discussed above, the final amendments will also expand security identification information by adding a CUSIP requirement for collateral securities that money market funds report on Form N-MFP. CUSIP numbers are proprietary security identifiers and their use (including storage, assignment, and distribution) entails licensing restrictions and fees that vary based on factors such as the number of CUSIP numbers used.⁶⁹² Money market funds are currently required to disclose CUSIP numbers for each holding they report on Form

⁶⁹⁰ Other regulators with LEI requirements include the U.S. Federal Reserve, European Union's (E.U.'s) MiFid II regime, and Canada's IIROC; the LEI is also used by private market participants for risk management and operational efficiency purposes. *See* <https://www.lei.org/lei/uses.htm>.

⁶⁹¹ Fees and restrictions are not imposed for the usage of or access to LEIs.

⁶⁹² The CUSIP system (formally known as CUSIP Global Services) is owned by the American Bankers Association and managed by FactSet Research Systems Inc. *See* CGS History, *available at* <https://www.cusip.com/about/history.html>, and License Fees, *available at* <https://www.cusip.com/services/license-fees.html>.

N-MFP.⁶⁹³ As such, the incremental compliance cost on money market funds associated with the CUSIP requirement, compared to the baseline, will be limited to those costs, if any, incurred by money market funds as a result of storing additional CUSIP numbers (to the extent money market funds do not already store CUSIP numbers for their collateral securities).⁶⁹⁴

As discussed in section II, one commenter supported the CUSIP requirement and agreed that money market fund managers will not incur additional costs or burden due to the CUSIP requirement.⁶⁹⁵ By contrast, one commenter opposed the CUSIP requirement due to its limited utility and the costs involved.⁶⁹⁶ However, we believe the CUSIP requirement will be useful, because it will provide more precise and consistent identification of the securities that money market funds use as collateral, thus facilitating staff and public analysis of money market fund activity. Also, as noted, we do not believe the CUSIP requirement will cause money market funds to incur incremental additional costs, because they are subject to existing CUSIP reporting obligations.

d. Benefits and Costs of Structured Data Requirement for Form N-CR

The final amendments will require money market funds to submit reports on Form N-CR using a structured, machine-readable data language—specifically, in an XML-based language created specifically for Form N-CR (“N-CR-specific XML”).⁶⁹⁷ Currently, money market funds

⁶⁹³ See Item C.3 of Form N-MFP.

⁶⁹⁴ CUSIP license costs vary based upon, among other factors, the quantity of CUSIP numbers to be used, on a tiered model, with the lowest tier being up to 500 CUSIP numbers. See CGS License Structure, *available at* <https://www.cusip.com/services/license-fees.html#/licenseStructure>. Based on our understanding of current CUSIP licenses and usage among money market funds, we do not believe the CUSIP reporting requirement for collateral securities is likely to impose incremental compliance costs on money market funds by moving them into a new CUSIP license pricing tier.

⁶⁹⁵ See ABA Comment Letter II. This commenter additionally asserted that a discussion of licensing restrictions is not relevant to the added CUSIP requirement under final amendments, and that the concept of CUSIP being proprietary has never applied to transactional use or regulatory reporting. However, the commenter did not specify which particular provisions in the license agreement set forth exceptions for regulatory reporting and transactional use.

⁶⁹⁶ See Federated Hermes Comment Letter I.

⁶⁹⁷ This would be consistent with the approach used for other XML-based structured data languages created by

submit reports on Form N-CR in HTML or ASCII, neither of which is a structured data language.⁶⁹⁸ As discussed in section II, the Commission received one comment that viewed the final structured data requirement as a reporting enhancement that will increase transparency for institutional and retail investors, and allow regulators and policymakers to better assess the state of the financial system.⁶⁹⁹ By contrast, one commenter opposed this requirement, indicating that a structured data language requirement is costly and not used by investors.⁷⁰⁰ This aspect of the final amendments may facilitate the use and analysis, both by the public and by the Commission, of the event-related disclosures reported by money market funds on Form N-CR, as compared to the current baseline. The improved usability of Form N-CR could enhance market and Commission monitoring and analysis of reported events, thus providing greater transparency into potential risks associated with money market funds on an individual level and a population level.

Importantly, the incremental costs associated with requiring money market funds to submit reports on Form N-CR in N-CR-specific XML, compared to the baseline of submitting Form N-CR in HTML or ASCII, may be low given that money market funds already utilize XML-based languages to meet similar requirements in their other reporting, and can utilize their existing capabilities for preparing and submitting Form N-CR.⁷⁰¹ In addition, money market funds will be given the option of filing Form N-CR using a fillable web form that will render into N-CR-specific XML in the Electronic Data Gathering, Analysis, and Retrieval (“EDGAR”) system, rather than filing directly in N-CR-specific XML using the technical specifications published on the Commission’s website. However, under the final rule, money market funds that choose to submit Form N-CR directly in N-CR-specific XML (rather than use the fillable web

the Commission for certain specific EDGAR Forms, including Form N-CEN and Form N-MFP. *See* Current EDGAR Technical Specifications, *available at* <https://www.sec.gov/edgar/filer-information/current-edgar-technical-specifications>.

⁶⁹⁸ *See supra* note 400.

⁶⁹⁹ *See, e.g.*, Western Asset Comment Letter.

⁷⁰⁰ *See* Federated Hermes Comment Letter I.

⁷⁰¹ *See supra* note 400.

form) will incur the incremental compliance costs of updating their existing preparation and submission processes to incorporate the new technical schema for N-CR-specific XML.⁷⁰²

7. Calculation of Weighted Average Maturity and Weighted Average Life

The Commission is adopting amendments to rule 2a-7 to specify that WAM and WAL must be calculated based on percentage of each security's market value in the portfolio, rather than based on amortized cost of each portfolio security. These amendments will enhance consistency and comparability of disclosures by money market funds in data reported to the Commission and provided on fund websites and, as discussed in section II, commenters generally supported these amendments.⁷⁰³ One commenter indicated that the fractional difference between the weighted average maturity and weighted average life calculated with amortized cost versus market value would not meaningfully impact a fund's weighted average maturity or weighted average life.⁷⁰⁴ As discussed above, while the difference between a fund's weighted average maturity or weighted average life calculated using amortized cost versus market value is likely to be small in many circumstances, it may be more significant when a security's issuer experiences a credit event, during periods of market stress, or when interest rates rise rapidly, particularly for assets with longer maturities. The Commission continues to believe that a consistent definition of WAM and WAL across funds can enhance transparency for investors seeking to assess the risk of various money market funds and may increase allocative efficiency. Moreover, greater comparability of WAM and WAL across money market funds may benefit investors and enhance Commission oversight of risks in money market funds.

In the Proposing Release, the Commission stated that these amendments are not expected to give rise to direct compliance costs. One commenter indicated that funds may be required to

⁷⁰² See *infra* section V.

⁷⁰³ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Capital Group Comment Letter.

⁷⁰⁴ See Federated Hermes Comment Letter I.

make additional operational changes to comply with the proposed calculation,⁷⁰⁵ but did not provide any estimates of related costs. The Commission is unable to quantify the costs of such potential operational changes because they may depend on the extent to which funds and fund families that use amortized cost in their WAM and WAL calculations are already equipped to use market value in such calculations and, if they are already equipped to do so, whether the ability to instead use market value is automated or requires manual involvement in the calculation.⁷⁰⁶ However, as discussed in section II, the Commission continues to believe that a majority of money market funds already calculate WAM and WAL based on the percentage of each security's market value in the portfolio and all types of money market funds determine the market values of their portfolio holdings for other purposes, which may limit the extent of operational changes needed.⁷⁰⁷ Importantly, these amendments may enhance the consistency of WAM and WAL calculations across funds, which may better inform investors and enhance Commission oversight.

8. Form PF Requirements for Large Liquidity Fund Advisers

As discussed in section II, the amendments to section 3 of Form PF include requirements for additional and more granular information that large advisers to private liquidity funds will have to provide regarding operational information and assets, as well as portfolio holdings, financing, and investor information.

The amendments will require large liquidity funds to report substantially the same information that money market fund will report on Form N-MFP. Thus, in combination with the final Form N-MFP amendments, Form PF amendments will help provide a more complete

⁷⁰⁵ *Id.*

⁷⁰⁶ For example, the commenter stated that its retail and government money market funds currently use amortized cost in their WAM and WAL calculations but are equipped to immediately shift to using market value if an issuer of portfolio securities had a credit problem. *See* Federated Hermes Comment Letter I.

⁷⁰⁷ Money market funds that use a floating NAV use market values when determining a fund's NAV, while money market funds that maintain a stable NAV are required to use market values to calculate their market-based price at least daily.

picture of the short-term financing markets, in which liquidity funds and money market funds invest. In turn, they may enhance the Commission's and FSOC's ability to assess the potential market and systemic risks presented by liquidity funds' activities.⁷⁰⁸ One commenter questioned the value added of the data.⁷⁰⁹ The Commission continues to believe that additional and more granular information in the final amendments will enable the Commission and FSOC to better assess liquidity funds' asset turnover, liquidity management and secondary market activities, subscriptions and redemptions, and ownership type and concentration. This information may be used to analyze funds' liquidity and the susceptibility of funds with specific characteristics to the risk of runs, which may give rise to systemic risk concerns. In addition, the information can be used for identifying trends in the liquidity funds industry during normal market conditions and for assessing deviations from those trends that could potentially serve as signals for changes in the short-term funding markets. Also, amendments to section 3 of Form PF will improve comparability of data across liquidity funds and money market funds, which may further enhance oversight.

These additional tools and data may enable the Commission and FSOC to better anticipate and deal with potential systemic and investor harm risks associated with activities in the liquidity funds industry and overall markets for short-term financing. This may increase the resilience of short-term financing markets and enhance investor confidence in the U.S. markets for short-term financing, which could facilitate capital formation.

⁷⁰⁸ See, e.g., Better Markets Comment Letter on File No. S7-01-22; Loubriel Comment Letter on File No. S7-01-22.

⁷⁰⁹ See NYC Bar Comment Letter on File No. S7-01-22. For more general criticism of benefits of Form PF, see, e.g., Comment Letter of Alternative Investment Management Association and Alternative Credit Council on File No. S7-01-22 (Mar. 21, 2022); Comment Letter of Teachers Insurance and Annuity Association of America on File No. S7-01-22 (Mar. 21, 2022) ("TIAA Comment Letter on File No. S7-01-22"); Comment Letter of Real Estate Board of New York (Mar. 21, 2022). Some commenters argued that sophisticated investors do not require monitoring of their private fund investments, see, e.g., Comment Letter of Center for Capital Markets Competitiveness, U.S. Chamber of Commerce on File No. S7-01-22 (Mar. 21, 2022); Comment Letter of SIFMA on File No. S7-01-22 (Feb. 11, 2022).

The final amendments to Form PF will lead to certain additional costs for advisers of large liquidity funds. While we are unable to quantify the full costs of the final Form PF amendments for advisers of large liquidity funds, we are able to estimate some of the costs, specifically the costs related to information collection requirements as defined by the PRA. The information collection costs are quantified in section V.F.⁷¹⁰ Advisers may pass along all or a portion of these costs to large liquidity fund investors, and the degree to which investors may ultimately bear such costs may depend on, among others, how advisers choose to comply with the final amendments, competition among large liquidity fund advisers, and competition between large liquidity funds relative to money market funds, among others.

The costs to advisers of large liquidity funds may include both direct compliance costs and indirect costs, which may be relatively larger for smaller advisers.⁷¹¹ The final amendments aimed at improving data quality and comparability, such as requiring advisers to identify any “other unique identifier” they use to identify portfolio securities, may impose limited direct costs on advisers given that advisers already accommodate similar requirements in their current Form PF and Form ADV reporting and can utilize their existing capabilities for preparing and submitting an updated Form PF. Most of the costs are likely to arise from the requirements to report additional and more granular information on Form PF, such as requiring advisers to distinguish between U.S. Government agency debt categorized as a coupon-paying note and a zero-coupon note. For existing section 3, the direct costs associated with the final amendments to section 3 will mainly include an initial cost to set up a system for collecting and verifying

⁷¹⁰ As discussed in section V.F, the Commission estimates a total cost increase associated with the information collection requirements of amended Form PF of \$9,931 per initial filing and \$3,331 per quarterly filing.

⁷¹¹ Some commenters emphasized, generally, disproportionate costs of Form PF to smaller advisers. *See, e.g.*, Comment Letter of Managed Funds Association on File No. S7-01-22 (Mar. 21, 2022); TIAA Comment Letter on File No. S7-01-22; Comment Letter of Real Estate Roundtable on File No. S7-01-22 (Mar. 21, 2022).

additional more granular information, and limited ongoing costs associated with periodic reporting of this additional information.⁷¹²

Indirect costs for advisers will include the costs associated with other actions that advisers may decide to undertake in light of the additional reporting requirements. Specifically, to the extent that the final amendments provide an incentive for advisers to improve internal controls and devote additional time and resources to managing their risk exposures and enhancing investor protection, this may result in additional expenses for advisers, some of which may be passed on to the funds and their investors.

Form PF collects confidential information about private funds and their trading strategies, and the inadvertent public disclosure of such competitively sensitive and proprietary information could adversely affect the funds and their investors. However, we anticipate that these adverse effects will be mitigated by certain aspects of the Form PF reporting requirements and controls and systems designed by the Commission for handling the data. For example, with the exception of select questions, such as those relating to restructurings/recapitalizations of portfolio companies and investments in different levels of the same portfolio company by funds advised by the adviser and its related person, Form PF data generally could not, on its own, be used to identify individual investment positions. The Commission has controls and systems for the use and handling of the modified and new Form PF data in a manner that reflects the sensitivity of the data and is consistent with the maintenance of its confidentiality. The Commission has substantial experience with the storage and use of nonpublic information reported on Form PF.

⁷¹² Section V estimates direct internal compliance costs for existing section 3 filers associated with the preparation and reporting of additional and more granular information by large liquidity fund advisers. It is estimated that there will be no additional direct external costs and no changes to filing fees associated with the proposed amendments to section 3.

D. Alternatives⁷¹³

1. Alternatives to the Removal of Temporary Redemption Gates

The final amendments could have replaced the 30% weekly liquid asset threshold for the discretionary imposition of temporary redemption gates with a different threshold. This alternative would allow money market funds to impose gates during large redemptions to reduce some of the dilution costs during large redemptions. However, as discussed above, we believe that a weekly liquid asset threshold for gates could trigger runs on money market funds in times of stress. Under the final amendments, money market funds are still able to reduce dilution costs during large redemptions. Under current rule 22e-3, money market funds are permitted to impose permanent suspensions of redemptions where a fund's weekly liquid assets drop below 10% and the fund determines to liquidate the fund. In addition, institutional prime and institutional tax-exempt money market funds are required to charge mandatory liquidity fees based on a same day net redemption threshold that may be less susceptible to run risk, and money market funds retain broad flexibility with respect to the imposition of discretionary liquidity fees without any regulatory thresholds.

The final amendments could also have modified the trigger for redemption gates. The final rule could have eliminated the tie between the possible imposition of gates and a weekly liquid asset threshold without eliminating funds' ability to impose gates outside of liquidation, for example, by allowing boards complete discretion in imposing gates.⁷¹⁴ Alternatively, the final rule could have permitted funds to impose redemption gates after confidentially seeking regulatory approval. Under these alternatives, investors could, at any time, find themselves subject to a gate which would mean they would be unable to access their funds for cash management purposes. As a result, these alternatives would significantly reduce the usefulness of

⁷¹³ This discussion supplements the discussion of alternatives in other sections of the release.

⁷¹⁴ See, e.g., Federated Hermes Comment Letter I; Federated Hermes Board Comment Letter; Cato Inst. Comment Letter; Dechert Comment Letter.

these funds for investors, as they function as a means of cash management. Moreover, there would be few if any offsetting benefits of these alternatives in terms of discouraging runs relative to the final rule.

2. Alternatives to the Removal of the Tie between Weekly Liquid Assets and Discretionary Liquidity Fees

The final amendments could have replaced the 30% weekly liquid asset threshold for the imposition of discretionary liquidity fees with a different weekly liquid asset threshold. This alternative would allow money market funds to impose discretionary liquidity fees during redemption waves to reduce some of the dilution costs of large redemptions. However, as discussed above, we believe that, compared to net redemption thresholds, weekly liquid asset thresholds leave funds more vulnerable to strategic redemptions. The mandatory and discretionary fees under the final rule are expected to provide tools for money market funds to address dilution while reducing incentives for strategic redemptions and corresponding run risk.

3. Alternatives to the Final Increases in Liquidity Requirements

a. Alternative Thresholds

The final amendments could have included a variety of alternative daily and weekly liquid asset thresholds. More specifically, the Commission could have increased minimum liquidity thresholds to 20% daily liquid assets and 40% weekly liquid assets thresholds.⁷¹⁵

In the Proposing Release, the Commission quantified the potential effect of various liquidity thresholds on the probability that money market funds would confront liquidity stress, modeling stress in publicly offered institutional prime fund portfolios using the distribution of redemptions observed during the week of March 16 to 20, 2020, (“stressed week”) at various starting levels of daily and weekly liquid assets.⁷¹⁶ Using the same methodology (and subject to

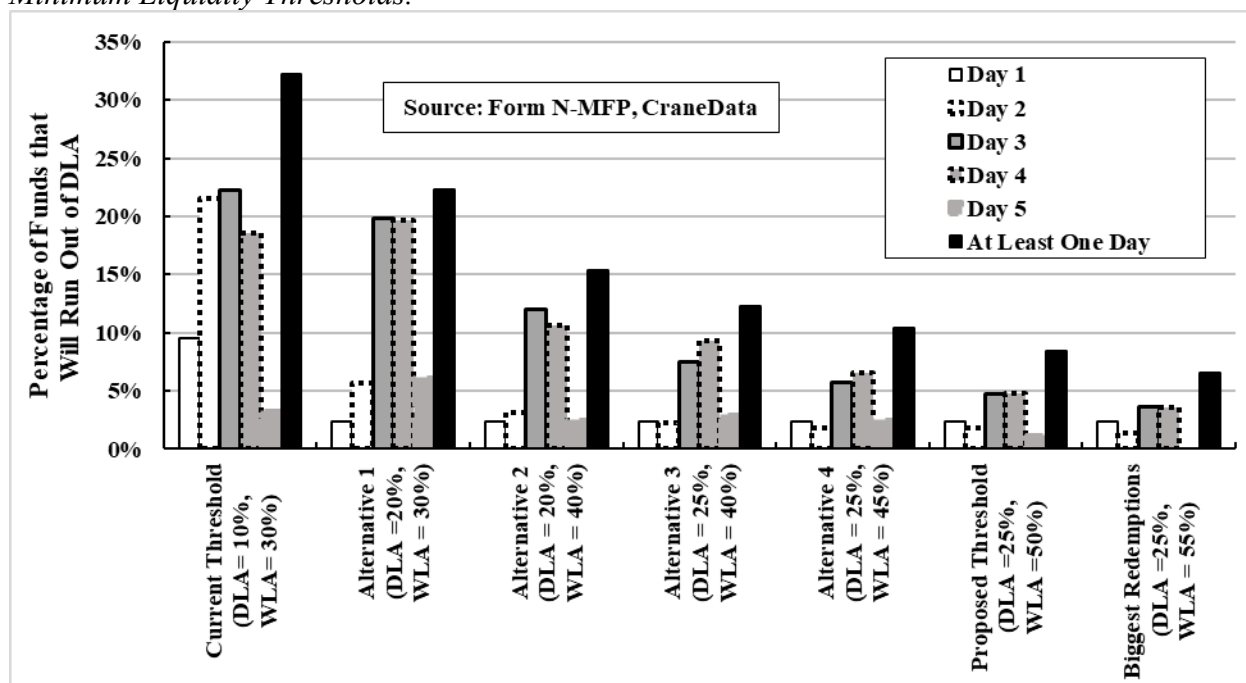
⁷¹⁵ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; JP Morgan Comment Letter; State Street Comment Letter; Western Asset Comment Letter; Invesco Comment Letter; Healthy Markets Association Comment Letter.

⁷¹⁶ 87 FR 7310.

the same caveats), Figure 13 below plots the probability that a fund will run out of daily liquid assets on a given day of the stressed week for a variety of thresholds, including those suggested by commenters.⁷¹⁷ For the final thresholds of weekly liquid assets at 50% and daily liquid assets at 25%, Figure 13 shows that about 8.4% of funds would deplete daily liquid assets and be unable to absorb redemptions out of daily liquid assets on at least one of the five stressed days. By contrast, a threshold of 20% daily liquid assets and 40% weekly liquid assets would approximately double the estimate of funds that would deplete daily liquidity to meet redemptions on at least one of the days of a stressed week (to approximately 15.4%). As referenced above, the largest weekly and daily redemption during the week of March 16 to 20, 2020, was approximately 55% and 25% respectively. Thus, an approach aimed at eliminating the risk of funds having insufficient liquid assets to absorb redemptions (using redemption data from March 16 to 20, 2020) would require funds to hold more than 55% of weekly and at least 25% of daily liquid assets. Lower thresholds increase the probability that some funds may deplete their liquid assets to meet redemptions, but also reduce the adverse impacts described above.

⁷¹⁷ See *supra* note 715. See also IIF Comment Letter (suggesting 20% daily liquid asset and 30% weekly liquid asset thresholds); Bancorp Comment Letter (suggesting 25% daily liquid asset and 40% weekly liquid asset thresholds); Morgan Stanley Comment Letter (suggesting 25% daily liquid asset and 45% weekly liquid asset thresholds).

Figure 13: The Probability that a Fund will Run Out of Daily Liquid Assets under Different Minimum Liquidity Thresholds.



Similarly, Table 12 quantifies the daily probability that a publicly offered institutional prime fund depletes daily liquid assets to meet redemptions under four scenarios: the current baseline daily and weekly liquid asset thresholds, thresholds based on the largest daily and weekly redemption during the stressed week; proposed daily and weekly liquid assets thresholds; and several alternatives suggested by commenters.⁷¹⁸ The baseline scenario would require no change for money market funds; the “biggest redemptions” alternative would require approximately 8% of all prime funds (including both institutional and retail prime funds) to increase their daily liquid assets and approximately 34% of all prime funds to increase their weekly liquid assets.

⁷¹⁸ See, e.g., IIF Comment Letter (suggesting 20% daily liquid asset and 30% weekly liquid asset thresholds); Bancorp Comment Letter (suggesting 25% daily liquid asset and 40% weekly liquid asset thresholds); Morgan Stanley Comment Letter (suggesting 25% daily liquid asset and 45% weekly liquid asset thresholds). Several commenters suggested thresholds of 20% daily liquid assets and 40% weekly liquid assets. See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; JP Morgan Comment Letter; State Street Comment Letter; Western Asset Comment Letter; Invesco Comment Letter; Healthy Markets Association Comment Letter.

Table 12: Probability a Publicly Offered Institutional Prime Fund Runs out of Liquidity under the Baseline, Proposed Threshold, Biggest Redemptions and 4 Alternative Thresholds.

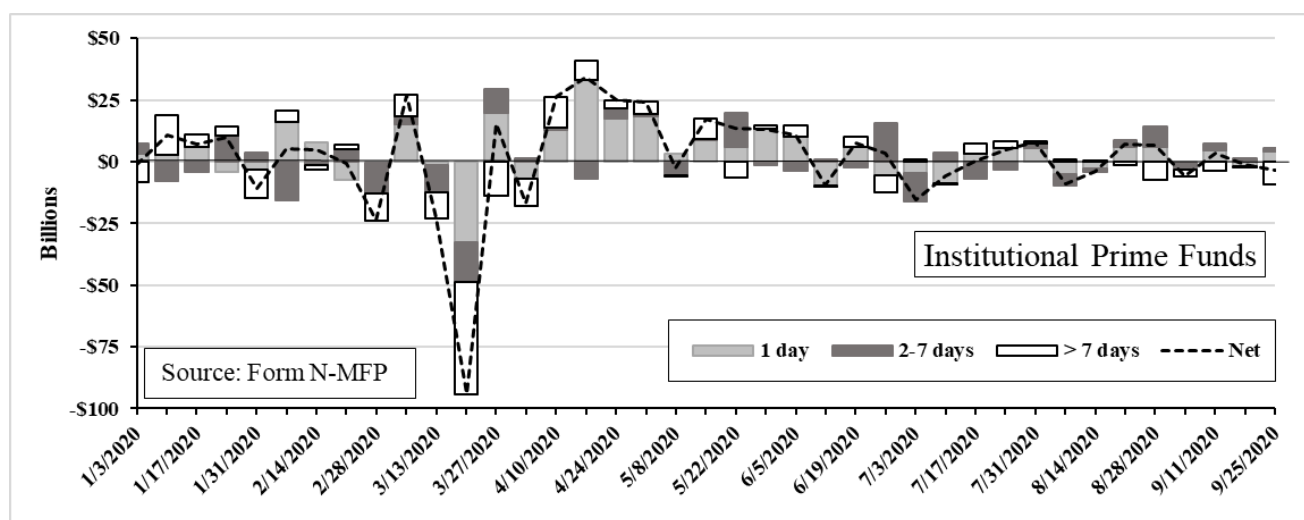
Model	Starting Liquidity		Probability that a Fund Depletes Available Liquidity on a Given Day					At Least One Day
	DLA	WLA	Day 1	Day 2	Day 3	Day 4	Day 5	
Current Threshold	10%	30%	9.5%	21.5%	22.3%	18.6%	3.3%	32.3%
Proposed Threshold	25%	50%	2.4%	1.8%	4.8%	4.8%	1.2%	8.5%
Biggest Redemptions	25%	55%	2.4%	1.4%	3.6%	3.6%	0.0%	6.5%
Alternative 1	20%	30%	2.4%	5.7%	19.9%	19.6%	6.2%	22.3%
Alternative 2	20%	40%	2.4%	3.1%	12.0%	10.6%	2.5%	15.4%
Alternative 3	25%	40%	2.4%	2.3%	7.5%	9.3%	3.0%	12.3%
Alternative 4	25%	45%	2.4%	1.8%	5.7%	6.5%	2.5%	10.4%

Source: Form N-MFP and CraneData

The above estimates rely on a number of modeling assumptions. First, institutional prime fund redemptions were historically higher than redemptions out of retail funds, which may bias the analysis to overestimate the probability a retail or private institutional prime fund runs out of liquidity on a given day. Second, the analysis assumes that assets maturing on a given business day will be available at the end of that day. Third, the analysis assumes no assets are sold into a distressed market and redemptions are absorbed fully out of a fund's liquid assets. Fourth, the models do not include government agency securities with a maturity in excess of seven days, and assume Treasury securities have daily liquidity regardless of maturity and can be sold without any loss. Fifth, the analysis assumes that funds would go below the current rule's 30% weekly liquid asset minimum, continuing to meet redemptions out of liquid assets, rather than hold on to the weekly liquid assets as occurred in March 2020. As discussed above, the removal of the potential imposition of redemption gates from rule 2a-7, and the removal of the current use of weekly liquid asset thresholds for redemption gates and liquidity fees in the rule, may increase the willingness of money market funds to meet redemptions with daily and weekly liquid assets. Sixth, these estimates are based on redemption patterns in March 2020 and the distribution of future redemptions may differ, in part, as a result of the proposed amendments.

In addition, this analysis does not capture the extent to which fund managers may be able to anticipate redemptions and pre-position fund liquidity ahead of time.⁷¹⁹ However, their ability to do so may be hampered in times of severe stress when redemption patterns are more volatile and less predictable, and costs of portfolio rebalancing are higher. Specifically, we have analyzed aggregate portfolios of institutional prime and retail prime funds during market stress in March 2020. As can be seen from Figure 14 and Figure 15 below, institutional prime funds increase their daily liquid assets the week after peak market stress (week of March 27), rather than during the week of peak market stress (week of March 20) when they experienced large net redemptions. By contrast, retail prime funds experienced less net redemptions and were able pre-position their portfolios during peak stress week by increasing their daily liquid assets.⁷²⁰

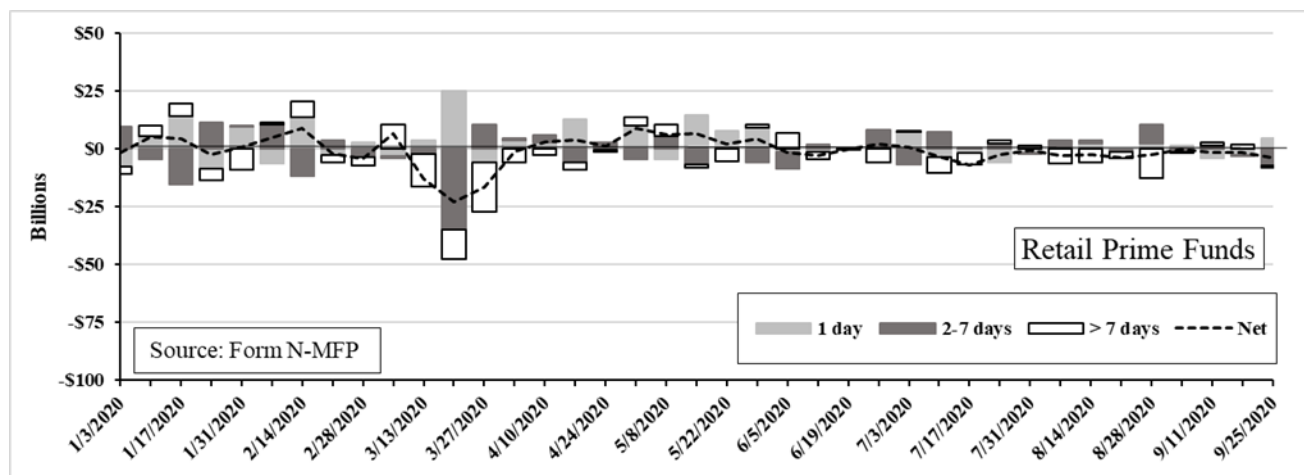
Figure 14: Aggregate Asset Changes of Institutional Prime Funds during 2020, by Liquidity Bins.



⁷¹⁹ See, e.g., Federated Hermes Comment Letter I. The commenter also indicated that the analysis relies on a false assumption that there are no inflows into the fund which could be utilized to offset redemptions. Since this analysis uses net rather than gross redemption patterns during March 2020, historical subscription activity is captured in the stressed fund paths analyzed here.

⁷²⁰ In general, prime funds increased their liquidity after the Mar. 2020 market dislocation by purchasing Treasury securities from inflows, maturing assets or selling longer-dated assets. For instance, between Feb. 28, 2020 and Aug. 31, 2020, retail prime money market funds decreased their portfolio percentage of commercial paper and certificates of deposit from 64% to 38%, while the percentage of Treasury debt and repos increased from 14% to 34%. Similarly, institutional prime money market funds decreased their portfolio percentage of commercial paper and certificates of deposit from 50% to 38%, while the percentage of Treasury debt and repos increased from 18% to 33%.

Figure 15: Aggregate Asset Changes of Retail Prime Funds during 2020, by Liquidity Bins.



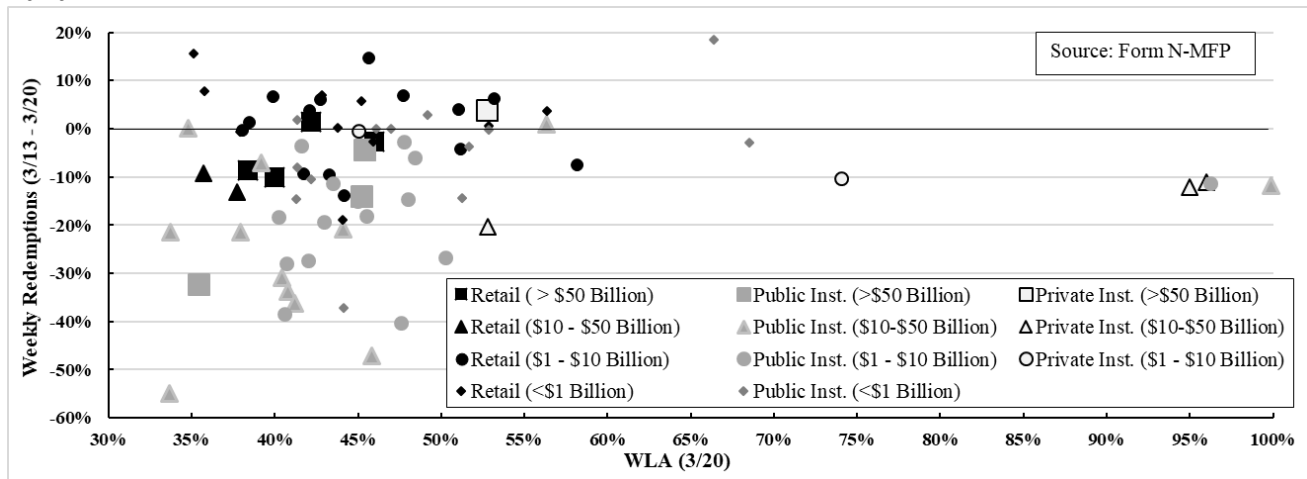
The Commission has received comments⁷²¹ that, under certain assumptions, a 20% daily and 40% weekly liquid asset threshold may be sufficient for funds to meet redemptions even if the stress lasts 10 weeks. One commenter’s analysis in support of these thresholds assumed that funds face a redemption rate of 16% and that fund portfolios have somewhat frontloaded maturity laddering. In addition, the analysis did not take into account how heterogeneity in portfolio construction across funds may influence the levels of liquidity available to meet redemptions. Notably, during the stress of March 2020, funds exhibited a distribution of outflows with some funds experiencing outflows double or triple the average redemption rate; portfolios reported on Form N-MFP exhibited less frontloaded maturity structures than the commenter assumed; and heterogeneity in portfolio constructions mean that funds with longer dated securities would have less liquidity to meet redemptions. Additional analysis, described in greater detail below, aims to extend the commenter’s modeling framework to take into account variations in redemption patterns and portfolio construction across funds.

Out of the sample of 42 prime money market funds, we removed four funds with weekly liquid assets below 35%, following the commenter’s methodology to account for the possibility that redemptions out of those funds were exacerbated by the threat of gates and fees as weekly

⁷²¹ See, e.g., ICI Comment Letter.

liquid asset levels approached 30%.⁷²² The average redemption rate for these four funds was approximately 28%, with the remaining 38 funds having an average redemption rate of 16%. Importantly, as can be seen from Figure 16, there were a number of funds with weekly liquid assets in excess of 35% that had redemptions double and triple the 16% average.

Figure 16: Weekly Redemptions in Prime Money Market Funds during the Week of March 20, 2020



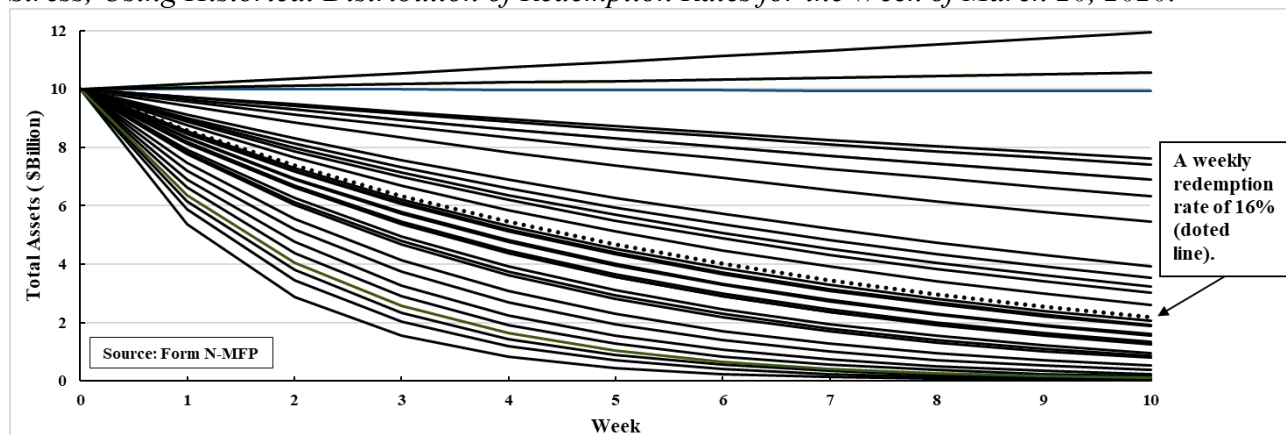
Next, we examined 1,744 public institutional prime fund portfolios that filed on Form N-MFP between October 2016 and February 2020 and placed every security in the 1,744 portfolios into maturity bins by week (from 1 week to >10 week maturity). Setting initial weekly liquid assets for each portfolio based on a given fund's weekly liquid assets provided on Form N-MFP and assuming no gates or fees, we then stressed each portfolio for 10 weeks using weekly redemption rates of 38 prime money market funds observed during the stress week. Similar to the commenter's analysis, we assumed that each portfolio started with \$10 billion in total assets. Each week we calculated a new weekly liquid asset level for each portfolio based on the weekly liquid asset level the week before, the amount of assets that rolled over into the weekly liquid asset bin, and the weekly redemption rates. If the portfolio did not have enough weekly liquid assets to meet the weekly redemptions, then we assumed the longest dated assets were sold first with no haircuts. Under these assumptions, Figure 17 reports simulated changes in money market

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Additional models without removing the four funds with weekly liquid assets below 35% were constructed to compare with the commenter's results and to test the robustness of the models.

fund total assets after 10-weeks of redemptions. Figure 17 shows that, considering the entire distribution of redemption rates in March 2020 rather than the average redemption rate of 16%, a number of funds run out of assets well before the 10 week mark.

Figure 17: Simulated Changes in Prime Money Market Fund Total Assets under 10 Weeks of Stress, Using Historical Distribution of Redemption Rates for the Week of March 20, 2020.



To further quantify these effects, Table 13 shows the distribution of weekly liquid assets in fund portfolios with starting weekly liquid assets of 40% when stressed with up to 10 weeks of redemptions using 38 historical prime money market fund redemption rates in the stress week. As can be seen from Table 13, after one week of redemptions, 10% of fund portfolios with starting weekly liquid assets of 40% had less than or equal to 9% of weekly liquid assets remaining. By contrast, 10% of fund portfolios with starting weekly liquid assets of 50% had less than or equal to 28% of weekly liquid assets remaining. As another example, if fund portfolios enter the stress week with 40% in weekly liquid assets, a fifth have run out of weekly liquid assets to meet redemptions by week 2. At the same time, if fund portfolios enter the stress week with 50% in weekly liquid assets, a fifth of funds has 23% of weekly liquid assets remaining to meet redemptions.

Table 13: Distribution of Weekly Liquid Assets (WLA) in Stressed Prime Money Market Fund Portfolios After 5 Weeks of Stress, Using Historical Distribution of Redemption Rates in March 20, 2020 and Portfolio Composition Data from Form N-MFP.

Week	WLA		Distribution of WLA										
	Start	Min	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	Max
1	40%	0%	3%	9%	20%	27%	30%	33%	35%	38%	40%	42%	60%

2	40%	0%	0%	0%	0%	13%	19%	25%	31%	37%	42%	45%	66%
3	40%	0%	0%	0%	0%	0%	6%	16%	25%	36%	42%	47%	79%
4	40%	0%	0%	0%	0%	0%	0%	8%	23%	37%	45%	51%	100%
5	40%	0%	0%	0%	0%	0%	0%	1%	19%	37%	46%	54%	100%
1	50%	6%	22%	28%	38%	42%	44%	47%	50%	52%	54%	59%	69%
2	50%	0%	0%	0%	23%	32%	38%	44%	49%	53%	58%	67%	84%
3	50%	0%	0%	0%	6%	20%	31%	41%	50%	55%	61%	73%	90%
4	50%	0%	0%	0%	0%	11%	26%	41%	52%	58%	66%	80%	100%
5	50%	0%	0%	0%	0%	3%	21%	39%	53%	60%	68%	84%	100%

Table 13 demonstrates two key results. First, when the historical distributions in prime money market fund redemption rates during the stress week in March 2020 and fund portfolio compositions are taken into account, a large share of stressed funds would run out of liquidity well before the 10 week mark suggested by some commenters. Second, funds that enter stress with 50% in weekly liquid assets have more weekly liquid assets to meet redemptions and are more likely survive a period of prolonged stress than funds that enter stress with 40% in weekly liquid assets.

Some commenters indicated that the proposed changes to the current fee and gate framework would allow funds to more freely use existing liquid assets to meet redemptions and, thus supported a more modest increase to the liquidity requirements.⁷²³ The analysis presented above excludes from the distribution of historical redemption rates funds that entered the stress week with less than 35% of weekly liquid assets. Since those funds were more likely to approach the 30% weekly liquid asset threshold for the imposition of gates and fees, redemptions out of those funds were more likely to have been triggered by the risk of gating or fees. Thus, weekly liquid assets may remain crucial for the ability of money market funds to meet redemptions during times of stress even in the absence of gating.

More broadly, as can be seen from the above, lower liquidity thresholds relative to the final amendments would allow funds to hold less liquid assets, increasing fund liquidity risks.

⁷²³ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; T. Rowe Price Comment Letter; Invesco Comment Letter.

However, lower thresholds would decrease the number of money market funds having to restructure their portfolios; would reduce the incentives of funds to take larger risks in the less liquid portion of their portfolios; and would reduce the concentration of liquidity in repos that are used by leveraged market participants for funding liquidity.

Similarly, alternatives imposing higher minimum daily and weekly liquidity thresholds relative to the final amendments would require funds to hold more liquid assets, reducing the risk of fund liquidations or selloffs that may necessitate future government backstops. However, higher minimum liquidity thresholds would require a larger number of money market funds to reallocate their portfolios towards lower yielding investments. In addition, higher liquidity thresholds may lead funds to increase the risk in the remainder of their portfolios to attract investor flows or to keep fund yields from sliding below zero and ensure the viability of the asset class (the latter risk may be more pronounced in very low interest rate environments). Moreover, higher liquidity requirements may increase the availability of funding liquidity through repos to leveraged market participants, resulting in a higher levels of risk taking in less transparent and less regulated sectors of the financial system. The Commission continues to believe that the final liquidity thresholds balance these effects and are likely to allow more funds to have sufficient liquidity to meet redemptions during periods of liquidity stress.

b. Caps on Fund Holdings of Certain Assets

As an alternative to increasing the minimum daily and weekly liquid asset requirements, the Commission considered adopting caps on money market fund holdings of certain assets, such as commercial paper and certificates of deposit. Commercial paper and certificates of deposit lack an actively traded secondary market and are difficult to value or sell during times of liquidity stress. As discussed in the Proposing Release, limiting money market fund holdings of such instruments may reduce run risk to the degree that the illiquidity of all or a portion of a fund's portfolio may create externalities from redeeming investors borne by investors remaining in the fund, which may incentivize early redemptions.

However, this alternative relies on the assumption that commercial paper and certificates of deposit homogeneously reduce the liquidity of a fund's portfolio by more than other money market fund holdings across maturities. The Commission continues to recognize that these assumptions may not always hold for different money market funds and over different time horizons. Moreover, to the degree that investors prefer funds that deliver higher returns and money market funds benefit from investor expectations of implicit government backstops during times of liquidity stress, money market funds may react to this alternative by changing the maturity structure of their portfolios and reallocating into other securities with potentially higher liquidity risk. For example, money market funds may substitute short-term commercial paper and certificates of deposit that are classified as daily or weekly liquid assets with longer term commercial paper and certificates of deposit that would not be classified as daily or weekly liquid assets. Finally, because this alternative would involve defining the types of instruments subject to the cap, issuers may be able to create new financial instruments that are similar, and perhaps synthetically identical, to commercial paper and certificates of deposit along risk and return dimensions, but that would not be subject to the caps. The final approach, which would increase minimum daily and weekly liquid asset requirements, may reduce liquidity and run risk in money market funds without such potential drawbacks, while ensuring funds have minimum liquidity to meet large redemptions.

As another alternative, the final amendments could have replaced the minimum daily and weekly liquid asset thresholds with asset restrictions, such as imposing a minimum threshold for holdings of government securities⁷²⁴ and repos backed by government securities. Under the baseline, such assets are generally categorized as daily liquid assets. Thus, such an approach would have the effect of replacing minimum daily and weekly liquid asset thresholds with a single daily liquid asset threshold, and restricting the types of assets that would qualify as daily

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See, e.g., CCMR Comment Letter.

liquid assets. This alternative would reduce the liquidity risk of liquid assets held by money market funds, which may help them meet redemptions without transaction costs. However, waves of redemptions as experienced in 2008 and 2020 occur over multiple days, suggesting that money market funds need to have both daily and weekly liquidity to meet redemptions. Moreover, asset restrictions imposing large minimum thresholds for holdings of government securities would decrease not only the risk, but also the yield of money market funds and their attractiveness to investors, reducing the viability of the asset class in low interest rate environments. This approach would also further concentrate money market fund holdings in specific types of assets, which may increase the likelihood of funds selling the same assets to meet redemptions in times of stress.

Finally, under the baseline, funds falling below minimum liquid asset thresholds may not acquire any assets other than daily or weekly liquid assets, respectively, until funds meet those minimum thresholds. The final amendments will retain this baseline approach, while increasing the absolute daily and weekly liquid asset thresholds. As an alternative, the final amendments could have imposed penalties on funds or fund sponsors upon dropping below the required minimum liquidity threshold. Similarly, the final amendments could have imposed a minimum liquidity maintenance requirement, which would require that a money market fund maintain the minimum daily liquid asset and weekly liquid asset thresholds at all times instead of the current requirement to maintain the minimums immediately after the acquisition of an asset. During the market stress in 2020, funds experiencing large redemptions were reluctant to draw down on weekly liquid assets due to the existence of the threshold for the potential imposition of redemption fees and gates. Such alternatives may have a similar effect of penalizing money market funds for using liquidity when liquidity is most scarce, which may make money market funds reluctant to use daily and weekly liquid assets to meet large redemptions during market stress. As a result, money market funds would be incentivized to sell less liquid assets, such as longer maturity commercial paper, into distressed markets, rather than risk penalties and

dropping below minimum liquidity maintenance requirements. This may increase transaction costs borne by redeeming investors and may result in money market fund redemptions magnifying liquidity stress in underlying securities markets.

4. Alternative Stress Testing Requirements

As an alternative to the final amendments to stress testing requirements, the final amendments could have modified weekly liquid asset thresholds that funds must use for stress testing. For example, the final amendments could have required money market funds to perform stress testing using 15%, 20%, or 30% minimum weekly liquid asset thresholds. As another example, the final amendments could have required money market funds to use specific minimum daily and weekly liquid asset thresholds. Similarly, the Commission could have imposed explicit requirements regarding who would be responsible for determining the sufficient minimum level of liquidity for stress tests.⁷²⁵ These alternatives may reduce the discretion of boards and fund managers in stress testing. The Commission continues to recognize that stress testing design and optimum levels of liquidity will vary depending on the type of money market fund, investor concentration, investor composition, and historical distribution of redemption activity under stress, among other factors. Thus, alternatives establishing bright line thresholds for stress testing or limiting the ability of fund boards to delegate stress testing responsibilities could reduce the efficiency of the stress testing process and the usability of stress testing results for board and Commission oversight.

The Commission also could have required stress testing results to be disclosed to investors.⁷²⁶ This alternative could enable investors to better assess money market fund liquidity management and the vulnerability of various money market funds to liquidity stress. However, this alternative may also trigger self-fulfilling runs on more vulnerable money market funds, particularly in times of stress. Moreover, to the degree that funds anticipate the results of stress

⁷²⁵ See, e.g., T. Rowe Comment Letter.

⁷²⁶ See, e.g., Systemic Risk Council Comment Letter.

testing to become publicly disclosed, they may alter stress testing design, reducing its usability for board and Commission oversight.

5. Alternative Implementations of Liquidity Fees

a. Alternative Net Redemption Thresholds for Mandatory Liquidity Fees

As described in section II.B above, the final amendments will require institutional funds to apply liquidity fees when they experience large net redemptions. Specifically, if daily net redemptions exceed 5% of the fund's net assets, funds are required to assess liquidity fees that reflect the fund's good faith estimate of the costs the fund would incur if it sold a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions, including spread costs, other transaction costs (*i.e.*, any other charges, fees, and taxes associated with portfolio security sales), and market impact costs the fund would incur if it were to sell a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions (*i.e.*, vertical slice). If the fund is not able to make a good faith estimate supported by data of its liquidity costs based on the sale of a vertical slice (*e.g.*, if reliable transaction or quotation data for portfolio holdings are not available due to a freeze in short-term funding market activity), the fund would use a default liquidity fee of 1% of the value of share redeemed.

The final amendments could have used a different net redemption threshold for the application of mandatory liquidity fees. As shown in the Proposing Release, Table 14 demonstrates that 5% of institutional prime and institutional tax-exempt money market funds had outflows that exceeded 3.7%.

Table 14: Daily Flows of Institutional Money Market Funds.

Institutional Funds	Average Fund Count	Percentiles						
		5%	10%	25%	50%	75%	90%	95%
Prime Only	37	-3.5%	-1.9%	-0.5%	0.0%	0.6%	2.2%	3.9%
Prime + Tax-exempt	47	-3.7%	-2.1%	-0.5%	0.0%	0.6%	2.3%	4.1%

Notes: This table reports the results of an analysis of daily flows reported in CraneData on 1,228 days between Dec. 2016 and Oct. 2021. As of Sept. 2021, CraneData covered 87% of the funds and 96% of total assets. Flows at the class level were aggregated to the fund level. Flows of feeder funds were aggregated for an approximation of flows for the corresponding master fund.

In the Proposing Release, the Commission proposed a swing pricing requirement, with a 4% net redemption threshold for market impact calculations, assessed on a pricing period rather than a daily basis. The Commission has received comment that the 4% threshold for applying a market impact factor was too low, particularly where the NAV is struck multiple times a day.⁷²⁷ The final amendments could have required a lower net redemption threshold, such as 4%, or a higher threshold, such as 8% or 10% for the liquidity fee threshold. Alternatively, the final amendments could have used different redemption thresholds for the liquidity fee requirement for institutional prime and institutional tax-exempt funds. Section IV.C.4.b.i quantifies how alternative redemption thresholds would influence the scope of the liquidity fee framework and associated benefits and costs. For example, Table 7 shows the average percentage of funds per month that would exceed a certain net redemption threshold. For instance, on average, we would expect approximately 1.4% of institutional prime or institutional tax-exempt funds to exceed the 8% redemption threshold on any given day, while approximately 4.4% of institutional prime or institutional tax-exempt funds would exceed the 4% redemption threshold on any given day.

Higher (lower) net redemption thresholds for mandatory liquidity fees would reduce (increase) the number of days on which affected money market funds must estimate liquidity fees for portfolio securities, reducing (increasing) related costs and operational challenges. However, higher (lower) net redemption thresholds would also reduce (increase) the amount of dilution from redemptions that is recaptured by money market funds and accrue to non-

⁷²⁷

See, e.g., IIF Comment Letter; Bancorp Comment Letter.

transacting shareholders, especially in times of severe and/or prolonged stress. In addition, as discussed in section II.B.2.a, a higher redemption threshold for the imposition of liquidity fees may lead investors to expect that they will not incur a fee as long as they redeem early enough in a crisis, which may provide an incentive to redeem earlier in a redemption wave and contribute to the first-mover advantage. As discussed above, we believe that the final liquidity thresholds balance these effects and are likely to allow more funds to have sufficient liquidity to meet redemptions during periods of liquidity stress.

As another alternative, the final amendments could have required funds to set their own net redemption triggers on a fund-by-fund basis, with reference to each fund's historical flows.⁷²⁸ For example, each fund could have been required to determine the trading days for which it had its highest flows over a set time period, and set its net redemption threshold based on the 5% of trading days with the highest redemptions.⁷²⁹ Such alternatives could allow funds to customize their liquidity fee thresholds to their historical redemption flows. However, they may also result in under-application of fees by funds with higher run risk and over-application of fees by funds with lower run risk. For example, funds with volatile redemption histories and high investor concentration could avoid the application of liquidity fees in times of stress if they have had large historical redemptions, whereas funds with smooth redemption histories and low investor concentration would have to apply fees even in the face of low redemptions in absolute terms. In addition, these alternatives may reduce the comparability of money market fund returns for investors because liquidity fees, including the associated market impact calculations, influence reported fund returns. Finally, such alternatives may create strategic incentives for fund

⁷²⁸ As another possibility, the final amendments could have allowed funds discretion over which historical period could be chosen. However, because money market funds may not internalize the externalities that their liquidity management imposes on investors in the same asset class, they may not be incentivized to use such discretion in a way that mitigates those externalities. For example, some affected funds may choose a historical time period that results in liquidity fee thresholds that are too high, so that liquidity fees are rarely applied. Moreover, because liquidity fees would influence reported returns, the alternative may reduce the comparability of money market fund returns for investors.

⁷²⁹ As another alternative, the rule could have required policies and procedures regarding the choice of a threshold percent level based on historical data.

complexes to open and close funds depending on historical redemption activity. For example, to the degree that the estimation of liquidity fees may be burdensome or to the extent that there may be incentives from fund flows not to apply liquidity fees, fund families may choose to close funds that experienced high redemptions to avoid the application of liquidity fees.

**b. Alternative Allowing the Exclusion of Pre-Announced
Redemptions from the Net Redemption Threshold for Mandatory
Liquidity Fees**

Under the final amendments, all institutional prime and institutional tax-exempt money market funds will be required to apply liquidity fees during days with net redemptions in excess of 5% of fund net assets, unless the estimated liquidity fee is below 1 basis point. In addition to the final rule's de minimis exception, the final rule could have allowed funds to exclude from the 5% net redemption threshold redemption requests that were pre-announced by investors to a fund a reasonable period in advance. To the degree that fund managers are able to pre-position their portfolio liquidity to meet anticipated large redemptions, this alternative could result in fewer instances in which funds would be required to estimate liquidity fees when liquidity costs are de minimis. Moreover, this alternative would incentivize investors to pre-announce their large redemption requests to fund managers in order to reduce the possibility of a liquidity fee, and these pre-announced redemption requests may enhance efficiency of liquidity management by money market funds. At this time, we believe that the final rule may result in similar benefits because, under normal market conditions, the liquidity costs of a fund with pre-positioned liquidity meeting anticipated redemptions generally would be de minimis. However, unlike the alternative, if a fund is not able to pre-position its daily or weekly liquidity in anticipation of pre-announced redemptions and liquidity costs are above de minimis (for example, in stressed market conditions), pre-announced redemptions could still dilute non-transacting investors, and funds would be required to charge a liquidity fee to redeemers under the final rule.

The final rule could have allowed funds to exclude from the 5% net redemption threshold redemption requests that were pre-announced by investors to funds a reasonable period in advance instead of the final rule's de minimis exception. At this time, we believe that such an alternative may be more costly to funds and investors than the de minimis exception in the final rule, as an exception for pre-announced redemptions could increase uncertainty about when the exception applies (*e.g.*, what period of time before the day of redemption is reasonable and provides sufficient time for the fund to pre-position itself) and may incentivize investors to pre-announce redemptions that they may not ultimately carry through, which would create inefficiencies in the fund's liquidity management. Moreover, the final rule's de minimis exception may be more efficient than the pre-announced redemption exception because money market fund investors may face unexpected cash needs and may be unable to pre-announce their large redemptions.

c. Greater Discretion in the Liquidity Fee Framework

Under the final amendments, all institutional prime and institutional tax-exempt money market funds would be required to apply liquidity fees during days with net redemptions in excess of 5% of fund net assets. The Commission has considered several alternatives that would give funds greater discretion over both the triggers for liquidity fees, liquidity fee amounts, and potential caps. For example, the rule could require funds to adopt specific procedures regarding the potential imposition of liquidity fees.⁷³⁰ Similarly, the final rule could have left the application and calculation of liquidity fees to fund discretion, while requiring fund boards to consider certain specified factors when determining whether to implement a liquidity fee.⁷³¹ As a related alternative, the final rule could have provided institutional fund boards broad discretion to

⁷³⁰ See, *e.g.*, Federated Hermes Comment Letter I; ICI Comment Letter; Americans for Tax Reform Comment Letter; CFA Comment Letter.

⁷³¹ See, *e.g.*, ICI Comment Letter.

impose liquidity fees when in the best interest of the fund and its investors.⁷³² As another alternative, the final rule could have made the application of liquidity fees optional.

These alternatives may allow institutional funds not to implement liquidity fees or to implement a liquidity fee framework with higher liquidity fee thresholds and lower liquidity fee amounts (for example, without estimating market impacts of a hypothetical sale of the vertical slice). Relative to the final amendments, these alternatives may allow funds to better tailor their liquidity management and liquidity fee design to investor composition, portfolio and asset characteristics, and prevailing market conditions. This alternative may also avoid operational costs and challenges of liquidity fees for some funds. To the degree that the implementation of mandatory liquidity fees under the final rule may result in higher fees charged to redeemers, which can reduce the attractiveness of affected funds to investors, these alternatives may decrease potential adverse impacts of liquidity fees on the size of the institutional money market fund sector, the number of institutional money market funds available to investors, and the availability of wholesale funding liquidity in the financial system. However, these alternatives would decrease comparability of fund returns and benefits of the liquidity fee framework.

The operational costs of implementing liquidity fees are immediate and certain, while the benefits are largest in relatively rare times of liquidity stress. Moreover, affected funds may not internalize the externalities that they impose on investors in the same asset classes or the externalities that redeeming investors impose on investors remaining in the fund. While money market funds may have governance structures in place and reputational incentives to manage liquidity to meet redemptions – and fund sponsors may have chosen to provide sponsor support in the past – institutional money market funds also face disincentives from investor behavior and collective action problems. Specifically, to the degree that institutional investors may use

⁷³² See ICI Comment Letter; Schwab Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Federated Hermes Board Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter; Americans for Tax Reform Comment Letter.

institutional prime and institutional tax-exempt funds for cash management and may be sensitive to liquidity fees, funds that start charging liquidity fees on large redemptions when other funds are not may experience follow-on redemption waves. As a result, institutional money market funds may be reluctant to be the first to start charging liquidity fees, even if all such funds recognize the value of charging redeeming investors for the liquidity costs of redemptions.

Thus, these alternatives could reduce the likelihood that funds use liquidity fees as an anti-dilution tool. This may reduce or eliminate important benefits of the final liquidity fee requirement, including protecting non-transacting investors from dilution, reducing first-mover advantage and run risk, and reducing liquidity externalities money market funds may impose on market participants transacting in the same asset classes. In addition, relative to the final amendments, these alternatives would increase fund manager discretion over the choice of liquidity fee thresholds, size of liquidity fees, and the application of liquidity fees in general, which may reduce the comparability of money market fund returns for investors. Finally, in the absence of a prescribed trigger for liquidity fees, fund boards may default to relying on weekly liquid asset thresholds to trigger liquidity fees.⁷³³ As discussed in section IV.C.1 above, weekly liquid asset thresholds may magnify, rather than dampen, liquidity externalities in money market funds, the first-mover advantage in investor redemptions, and run risk in money market funds.

Importantly, as discussed in section IV.C.4.b, the final rule would allow institutional money market funds to impose discretionary liquidity fees on days with net redemptions at or below 5% of the fund's net assets. A combination of mandatory liquidity fees on days with large net redemptions and discretionary liquidity fees on days with smaller net redemptions may reduce dilution cost, run risk, and fund resilience when faced with large redemption waves and during times of stress, while providing funds with greater flexibility in routine liquidity management.

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See, e.g., Allspring Funds Comment Letter.

As a related alternative, the final amendments could have required institutional funds to apply liquidity fees as in the final rule, but without a requirement to estimate market impact factors. Alternatively, the final amendments could have made the use of market impact factors in liquidity fee calculations less prescriptive and more principles-based or optional in their entirety. These alternatives would reduce the likelihood and frequency with which affected money market funds would estimate market impacts in their liquidity fee calculations, which may reduce costs and operational challenges of doing so. However, this may reduce the frequency and size of liquidity fees and the benefits of liquidity fees for non-transacting shareholders.

Increased discretion in liquidity fee calculations may allow funds to tailor the calculation of liquidity costs to individual portfolio and asset characteristics and prevailing market conditions. This may make liquidity fees a more precise measure of liquidity costs assessed to redeeming investors. However, because liquidity fees influence reported fund returns, greater discretion over the calculation of liquidity fees may reduce the comparability of money market fund returns for investors. Moreover, because money market funds may not internalize the externalities that their liquidity management practices may impose on investors in the same asset class, they may not be incentivized to use such discretion in a way that mitigates those externalities. Specifically, funds may compete on liquidity fees and may face flow incentives to impose lower fees, and this alternative may result in assessed liquidity fees being too low to recapture the dilution costs of redemptions.

d. Other Liquidity Fee Thresholds, Tiered Liquidity Fees, and Alternative Default Fees

The Commission has considered a variety of alternatives to the final liquidity fee framework. For example, given baseline delays in order flows across various fund intermediary networks, the final rule could have required affected money market funds to impose liquidity fees conditional on a previous day's net redemptions exceeding 5% or some other threshold from the previous day. This alternative could improve precision of the threshold determination by

allowing funds to use more complete flow information. However, this alternative may involve three significant groups of costs. First, redeeming investors would be able to more accurately predict whether a liquidity fee would be assessed on a particular trading day and the following day.⁷³⁴ This may trigger redemptions on days in which fees would not be applied, magnifying the first-mover advantage in money market fund redemptions and reducing resilience of affected money market funds under stress. Second, days with large net redemptions may be followed by days with smaller net redemptions, especially outside of redemption waves. The alternative imposing a fee on next day's redemptions based on previous day's flows may capture less dilution costs compared to the final rule. Third, under this alternative, redeemers on a given day would be charged a liquidity fee based on the transaction activity of redeemers on a previous day, which can pose fairness concerns.

The final rule could have triggered fees based on a fund's sale of portfolio securities, instead of the level of net redemptions, and could have tied the size of the fee to ex post transaction costs and market impacts of security sales. In the swing pricing context, one commenter indicated that security sales are a better barometer of dilution than net redemptions.⁷³⁵ To the degree that most affected money market funds may meet redemptions out of daily or maturing weekly liquid assets, this approach could result in a less frequent imposition of liquidity fees. However, the final rule will allow funds to assume that the market impact of weekly liquid assets is zero and includes a de minimis exception for liquidity fees. Thus, under the final rule, most funds are also unlikely to assess liquidity fees under normal market conditions. To the degree that this alternative results in less frequent imposition of liquidity fees, especially in times of stress, it could involve lower costs of implementing the liquidity fee approach for affected money market funds – costs that are likely to be passed along to money

⁷³⁴ See 17 CFR 270.2a-7(h)(10)(ii)(C) (requiring a money market fund to update its website each business day to provide its net inflows or outflows as of the end of the preceding business day).

⁷³⁵ See, e.g., Capital Group Comment Letter.

market fund investors. Moreover, the size of the fee under this alternative would be derived from transaction data of each fund, which may increase the degree of precision in estimates of spread and market impact costs of redemptions.

However, this alternative may have significant costs relative to the final rule. Specifically, the alternative may reduce the amount of dilution costs affected money market funds recapture for the benefit of non-transacting shareholders relative to the final approach. If a fund is forced to sell portfolio securities during market stress, they are likely to sell less illiquid portfolio holdings first. A fee based only on the transaction costs and market impacts of the securities actually sold by a fund to meet redemptions would undercharge redeemers for the liquidity costs they impose on the remaining investors. Thus, relative to the final rule's requirement to estimate fees on the assumption of the sale of the pro-rata slice of portfolio securities, the alternative would reduce the benefits of the liquidity fee framework for the protection of non-transacting investors and run incentives in affected money market funds. Moreover, under stressed conditions, short-term funding markets may freeze and money market funds may be unable to sell portfolio securities, so the alternative may result in low or zero liquidity fees being assessed precisely when dilution costs are greatest. The final amendments may result in larger and more frequent liquidity fees being assessed, less dilution of non-transacting investors, and overall lower run risk in affected money market funds.

The final rule could have relied on alternative bright line approaches, whereby liquidity fees would trigger automatically upon certain events. For example, the final rule could have tied the trigger of mandatory liquidity fees to a specific net redemption level or weekly liquid assets threshold. As a related alternative, the liquidity fee framework could have included dual triggers based on net redemptions and liquidity levels, with both triggers being required for the imposition of a liquidity fee.⁷³⁶ For example, the rule could have triggered liquidity fees based on

⁷³⁶ See, e.g., ICI Comment Letter; IIF Comment Letter; BlackRock Comment Letter; JP Morgan Comment Letter; Invesco Comment Letter; SIFMA AMG Comment Letter.

net redemptions of more than 10% and drops in liquidity of more than 50% below required weekly liquid asset levels, which could be indicative of potential stress. As another alternative, liquidity fees could be triggered, at least in part, based on a specified amount of net redemptions over multiple days.⁷³⁷ For example, funds could be required to charge a 2% liquidity fee when they experience net redemptions of 15% over the course of two consecutive trading days. As another example, a fee could be triggered in the event of 5% net redemptions over three consecutive days, in addition to an occurrence of a Form N-CR reportable event. These alternatives may improve the ability of investors to forecast whether a liquidity fee would be imposed across time and may reduce the incidence with which funds would be required to impose liquidity fees relative to the final rule. The final rule's same-day net redemption trigger may be less forecastable and less susceptible to strategic redemptions and run risk relative to these alternatives.

The Commission also received comments recommending tying the application of liquidity fees to stress as indicated, for example, by weekly liquid assets instead of net redemptions.⁷³⁸ While significant declines in a fund's weekly liquid assets can reflect fund-specific liquidity stress and contribute to dilution of non-transacting shareholders, the weekly liquid asset threshold is more susceptible to strategic redemptions, as discussed in section IV.C.4 above. We believe that the final rule would result in larger liquidity fees under stressed conditions while reducing incentives for strategic redemptions incentives in three ways. First, the final rule would require that funds calculate market impacts based on the costs of selling the pro-rata slice of the fund portfolio, which would be higher under stress, as discussed in greater detail below. Second, where liquidity costs are below one basis point of the value of the shares redeemed, such as under normal conditions and outside of stress, funds would not be required to assess liquidity fees. Third, if markets are so stressed that transactions are scarce and funds are

⁷³⁷ See, e.g., Morgan Stanley Comment Letter; State Street Comment Letter.

⁷³⁸ See, e.g., ICI Comment Letter.

unable to estimate the costs of selling the pro-rata slice of the fund portfolio, funds would apply a default liquidity fee of 1%.

As another alternative, the Commission could have tiered liquidity fees depending on net redemptions and/or liquid asset thresholds. For example, some commenters suggested that affected funds could be required to charge liquidity fees of: (1) 0.25% if net redemptions are 10% or more and weekly liquid assets are less than 30% but at least 20%; (2) 1% if weekly liquid assets are less than 20% but at least 10%; and (3) 2% if weekly liquid asset are less than 10%.⁷³⁹ Other commenters suggested tiered liquidity fees based solely on declines in liquidity.⁷⁴⁰ For example, the final rule could have imposed a tiered fee structure for mandatory liquidity fees that would range from 0.5%, 1%, or 2% depending on whether weekly liquid assets were 20%-30%, 10%-20%, or less than 10%, respectively. These determinations could rely on the prior day's weekly liquid assets or on weekly liquid assets as of the end-of-day NAV calculation for these determinations.

Relative to the final rule, these alternatives may reduce costs of implementing the liquidity fee framework by eliminating costs of estimating spread and other transaction costs of net redemptions, as well as market impacts of a hypothetical sale of the vertical slice. Moreover, alternatives that would impose tiered liquidity fees based on daily or weekly liquid assets (without consideration of net redemptions) would eliminate costs of reviewing same-day net redemptions. Thus, these alternatives would require funds to impose higher fees in the face of declining liquidity and larger redemptions, which may proxy for larger liquidity costs of redemptions.

As discussed above, we believe that weekly liquid asset thresholds may be subject to greater run risk than a net redemption threshold. Moreover, by having solely fixed liquidity fee levels, these alternatives may over- or under-charge redeemers for the liquidity costs of their

⁷³⁹ See, e.g., BlackRock Comment Letter; JP Morgan Comment Letter.

⁷⁴⁰ See, e.g., ICI Comment Letter; Western Asset Comment Letter.

redemptions. In contrast, the final rule will generally require each fund to make a good faith estimate of the liquidity costs of meeting each day's worth of net redemptions under a given set of market conditions on that day. This may increase the accuracy with which liquidity fees price dilution costs, protecting non-transacting investors from dilution without over-charging redeemers. Importantly, under the final rule, the liquidity fee will be lower when a fund's weekly liquid assets are higher because the rule will allow funds to assume that weekly liquid assets have a market impact of zero, resulting in similar economic benefits of tiering.

Finally, the final rule could have included different default liquidity fees that funds would be able to charge if they are unable to produce good faith estimates of the liquidity costs of redemptions. For example, the Commission could have scaled the default liquidity fee of 1% in the final rule to a fund's liquid asset levels (for example, by multiplying it by one minus the level of weekly liquid assets, or by one minus the level of daily liquid assets, at the end of the same or previous day). Such alternatives to the default fee may more closely resemble the costs of a hypothetical sale of the vertical slice, as funds with higher liquid assets would charge lower default fees in times of stress, when they are better able to absorb redemptions out of liquid assets with a zero haircut. However, this approach could reduce the fee that funds charge redeemers in times of stress and, given that fund liquidity levels are publicly disclosed, could contribute to incentives to redeem before a fund's liquidity is depleted. Moreover, this alternative may create an incentive for funds to hold onto weekly liquid assets in times of stress, when the costs of the vertical slice are difficult to estimate and funds are most likely to use the default fee. The final rule's 1% default fee is consistent with the current baseline and is a significant fee for money market funds that are used as cash vehicles. Moreover, the default fee is intended to apply precisely when accurate data on liquidity costs for portfolio securities is not available and does not replace individual fund estimates of market impacts of a hypothetical sale of the vertical slice. Importantly, funds may have incentives to use default fees only in historically rare periods

of stress, when transaction and quotation activity in short-term funding markets freezes and data needed to estimate liquidity costs of redemptions are not available.

e. Other Alternative Implementations of Liquidity Fees

The final amendments could have required institutional funds to assess a liquidity fee on all days with net redemptions, rather than only on days when net redemptions exceed 5%. Alternatives requiring funds to apply liquidity fees when net redemptions are below the 5% threshold may enhance the expected economic benefits of liquidity fees. However, these alternatives would impose greater costs on institutional funds related to calculating spread, transaction, and market impacts when net redemptions are low. As discussed in the baseline, money market funds generally hold high levels of daily and weekly liquid assets, and the final amendments would require money market funds to hold even higher levels of these assets. As a result, unless both net redemptions and price uncertainty are large, institutional funds may be able to absorb redemptions of transacting investors without imposing large liquidity costs on the remaining investors.

The final amendments could have allowed funds to calculate the liquidity fees under the assumption that the fund would absorb redemptions out of liquid assets (the so-called horizontal slice of the fund portfolio) or otherwise provide funds with flexibility to determine the costs based on how they would satisfy redemptions on a given day. Money market funds may manage their liquidity so as to be able to absorb redemptions out of daily and weekly liquid assets, rather than having to sell a pro-rata share of their portfolio holdings. Moreover, the final amendments would require money market funds to hold higher levels of daily and weekly liquid assets. Assets that are not daily and weekly liquid assets can be less liquid and generally may need to be held to maturity by the fund. Thus, the alternative would allow funds to avoid charging liquidity fees if they are able to, for example, absorb redemptions out of more liquid assets. This may reduce uncertainty for investors about the magnitude of the potential liquidity fee, especially when liquidity is not scarce. However, this alternative would result in redeeming investors not being

charged for the true liquidity costs of redemptions, which consist not only of the immediate costs of liquidating fund assets, but also of the cost of leaving the fund more depleted of liquidity and thus more vulnerable to future redemptions.

As another alternative, the final amendments could have required that affected money market funds calculate the liquidity fee based on the fund's best estimate of the liquidity costs of redemptions, rather than following the approach prescribed in the final rule. Under this alternative, liquidity fees may more accurately capture the costs of redemptions as funds would be able to tailor fees to their liquidity management strategies (whether that is, for example, liquidating pro-rata shares of portfolio holdings, absorbing redemptions out of daily or weekly liquidity, or some other approach). However, this alternative would increase fund discretion in the calculation of liquidity fees, reduce comparability of fees across money market funds, and fund manager incentives may not be aligned with incentives to accurately estimate liquidity costs of redemptions. For example, larger liquidity fees benefit the fund and can improve reported fund performance. At the same time, disclosures about historical fees can incentivize fund managers to apply excessively low fees to attract investors.

6. Swing Pricing

In lieu of the final liquidity fee framework, the Commission could have adopted the swing pricing requirement similar to the mandatory liquidity fee framework, or as proposed. The swing pricing alternative has several important differences from the final liquidity fee framework, and these differences give rise to different economic benefits, costs, and operational challenges. As discussed in the Proposing Release and in section II, swing pricing and liquidity fees can both charge redeeming investors for the liquidity costs they impose on a fund and allow funds to recapture the liquidity costs of redemptions for non-redeeming investors. However, the swing pricing alternative may have several effects relative to the final liquidity fee framework.

First, the final liquidity fee framework may be more transparent than a swing factor adjustment to the fund's NAV, as redeeming investors would more clearly see application of a

separate fee. Some commenters stated that a liquidity fee would be less confusing and more transparent with respect to the liquidity costs redeeming investors incur because investors are more familiar with the concept of liquidity fees (that exist in the current rule) and because the size of the swing factor is not readily observable in the fund's share price.⁷⁴¹

Second, under the swing pricing alternative, subscribers enter at a lower price. This creates an incentive to subscribe that may be important when liquidity is scarce and a fund is facing a wave of redemptions. However, some commenters indicated that a liquidity fee would be a more direct way to pass along liquidity costs and, unlike swing pricing, would do so without providing a discount to subscribing investors or adding volatility to the fund's NAV.⁷⁴²

Third, there may be significant operational challenges and time pressures of swing pricing⁷⁴³ that reduce investor access to same day liquidity.⁷⁴⁴ Specifically, commenters expressed concern that swing pricing may inhibit a fund's ability to offer features such as same-day settlement and multiple NAV strikes per day due to concerns that swing pricing would delay a fund's ability to determine its NAV.⁷⁴⁵ Under the swing pricing alternative, a fund has to analyze flows and costs before publishing its NAV for each pricing period. In contrast, under the final liquidity fee framework, funds may have more time after publishing the NAV to finalize the liquidity fee determination and only need to perform the analysis once per day. One commenter indicated that a liquidity fee framework could better preserve same-day liquidity for investors than swing pricing because liquidity fees are already operationally feasible for many money market funds and present fewer implementation challenges.⁷⁴⁶ Because institutional money

⁷⁴¹ See, e.g., Morgan Stanley Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter II.

⁷⁴² See, e.g., ICI Comment Letter; Federated Hermes Comment Letter II; JP Morgan Comment Letter.

⁷⁴³ See, e.g., ICI Comment Letter; Northern Trust, Capital Group Comment Letter; JP Morgan Comment Letter.

⁷⁴⁴ See, e.g., Northern Trust Comment Letter; BlackRock Comment Letter.

⁷⁴⁵ See, e.g., Capital Group Comment Letter; State Street Comment Letter; ICI Comment Letter; Federated Hermes Comment Letter II; SIFMA AMG Comment Letter; BNY Mellon Comment Letter.

⁷⁴⁶ See IIF Comment Letter.

market funds typically offer same-day settlement, the final liquidity fee framework would also involve time pressures, albeit less acute.

Fourth, some commenters argued that swing pricing is ill-suited for money market funds given the general lack of experience with swing pricing in the money market fund industry,⁷⁴⁷ and indicated that liquidity fees would be easier for money market funds to implement, allowing funds to leverage their existing experience with liquidity fees under current rules.⁷⁴⁸

Fifth, the Proposing Release recognized that swing pricing may increase costs of tax reporting. Specifically, the swing pricing alternative may increase tax reporting burdens for investors if the requirement prevents an investor from using the NAV method of accounting for gain or loss on shares in a floating NAV money market fund or affects the availability of the exemption from the wash sale rules for redemptions of shares in these funds. Several commenters stated that swing pricing would increase tax reporting burdens because wash sale rules may apply to redemptions in floating NAV money market funds using swing pricing.⁷⁴⁹ In contrast, the tax implications of liquidity fees are already settled. In addition, liquidity fees have fewer accounting implications for funds because other types of mutual funds have used fees and money market funds are already subject to a liquidity fee framework.⁷⁵⁰

As discussed in section II, many commenters expressed broad concerns about the swing pricing proposal and its potential effect on institutional money market funds and investors. One commenter indicated that the swing pricing requirement is based on false assumptions, including the assumption that liquidity fees did not work during market stress of 2020, that fund boards

⁷⁴⁷ See Morgan Stanley Comment Letter; SIFMA AMG Comment Letter; IIF Comment Letter; Federated Hermes Comment Letter I; Federated Hermes Comment Letter II; Senator Toomey Comment Letter; Mutual Fund Directors Forum Comment Letter; *see also* Profs. Cecchetti and Schoenholtz Comment Letter.

⁷⁴⁸ See, e.g., Federated Hermes Comment Letter II; Invesco Comment Letter; SIFMA AMG Comment Letter; Schwab Comment Letter; IIF Comment Letter.

⁷⁴⁹ See, e.g., Northern Trust Comment Letter; Capital Group Comment Letter; ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter II; Americans for Tax Reform Comment Letter.

⁷⁵⁰ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter.

will not implement liquidity fees, and that swing pricing will not eliminate a key tenet of money market funds (availability of intraday and same day liquidity), among others.⁷⁵¹ Moreover, the commenter stated that empirical studies about the effects of swing pricing on redemptions in a crisis cited in the proposal do not support the swing pricing requirement.⁷⁵² While we disagree with this assertion, we are not adopting the swing pricing requirement for money market funds. Section II, section IV.4, and the above discussion highlight the effects of the liquidity fees tied to weekly liquid assets in March 2020 on redemption behavior, fund flow disincentives to implement liquidity fees, and the potential effects of swing pricing on the availability of same-day and intraday liquidity, among other things. In light of this analysis and commenter input,⁷⁵³ we believe that, on balance, the final liquidity fee framework may be a more operationally feasible and efficient way to reduce dilution of fund investors and facilitate liquidity risk management by money market funds while reducing costs and unintended effects on the money market fund industry and investors.

7. Expanding the Scope of the Floating NAV Requirements

The final amendments could have expanded the floating NAV requirements to a broader scope of money market funds. For example, the final amendments could have imposed floating NAV requirements on all prime money market funds, but not on tax-exempt funds. As another alternative, the final amendments could have imposed floating NAV requirements on all prime and tax-exempt money market funds.⁷⁵⁴ Finally, the final amendments could have required that all money market funds float their NAVs.⁷⁵⁵

⁷⁵¹ See Federated Hermes Comment Letter I.

⁷⁵² See Federated Hermes Comment Letter I discussing, for example, Dunhong Jin, et al., *Swing Pricing and Fragility in Open-End Mutual Funds*, 35 Rev. Fin. Stud. 1, 1-50 (2022).

⁷⁵³ For example, a number of commenters indicated that swing pricing would reduce the viability of institutional prime funds as an asset class and that most if not all institutional investors will abandon funds subject to swing pricing. See, e.g., Federated Hermes Comment Letter I. Also see, e.g., ICI Comment Letter; Capital Group Comment Letter; JP Morgan Comment Letter; BlackRock Comment Letter.

⁷⁵⁴ See, e.g., Schwab Comment Letter.

⁷⁵⁵ See, e.g., Americans for Tax Reform Comment Letter; Better Markets Comment Letter.

Expanding the scope of the floating NAV requirements beyond institutional prime and institutional tax-exempt funds would involve several benefits. First, a floating NAV may increase transparency about the risk of money market fund investments. Portfolios of money market funds give rise to liquidity, interest rate, and credit risks – risks that are relatively low under normal market conditions, but may be magnified during market stress. To the degree that investors in stable NAV funds are currently treating them as if they were holding U.S. dollars due to a lack of transparency about risks of such funds, expanding the scope of the floating NAV requirements may enhance investor protections and enable investors to make more informed investment decisions. Some commenters indicated that such an alternative could clarify to investors that there is investment risk in these products and that money market funds differ from insured bank deposits, as well as reduce the likelihood that official sector interventions and taxpayer support will be needed to halt future runs.⁷⁵⁶

Second, these alternatives could reduce run risk in affected stable NAV funds.⁷⁵⁷ Specifically, floating the NAV may reduce the first-mover advantage in redemptions, partly mitigating investor incentives to run. A floating NAV requirement could discourage herd redemption behavior across all prime money market funds and may reduce the advantages of sophisticated investors that redeem quickly under stressed conditions. Third, floating the NAV of a broader range of money market funds could more accurately capture their role in asset transformation and corresponding risks. Retail prime and retail tax-exempt funds have risky portfolio holdings, with some of the underlying holdings of retail money market funds similar to those of institutional prime funds, which experienced significant stress in 2020. Expanding the floating NAV requirements to all money market funds would result in a consistent regulatory treatment of money market funds and put them on par with other mutual funds. Moreover, it may enhance the allocative efficiency in the money market fund industry and may enhance

⁷⁵⁶ See, e.g., Schwab Comment Letter; Better Markets Comment Letter.

⁷⁵⁷ See, e.g., Schwab Comment Letter.

competition between floating NAV and stable NAV funds. To the degree that the disparate treatment of floating NAV and stable NAV funds led to a significant migration of institutional investments from prime and tax-exempt money market funds to government money market funds, alternatives expanding the scope of the floating NAV requirement to all money market funds may lead to outflows from government money market funds back into prime and tax-exempt sectors.

However, retail investors have exhibited a lower propensity to run in prior market stress periods than institutional investors. Additionally, government funds tend to receive inflows rather than outflows during periods of market stress. These factors would reduce the benefits of a floating NAV in terms of reducing run risk for retail and government funds. Further, the final rule's increase in liquidity requirements may decrease the portfolio and redemption risks of retail funds, as the final rule will require these funds to maintain liquidity levels that are high in comparison to historical redemptions these funds have experienced, further reducing the benefits of a floating NAV requirement.

At the same time, the alternatives would impose significant costs. First, such alternatives may reduce the attractiveness of affected money market funds to investors and may result in significant reductions in the size of the money market fund sector. One commenter noted that adopting a floating NAV for all funds may cause investors to reallocate capital into cash accounts subject to deposit insurance, with adverse effects on wholesale funding liquidity and access to capital for issuers.⁷⁵⁸ To the extent that retail investors use money market funds as a safe, cash-like product, floating the NAV of stable NAV funds may lead investors to reallocate capital into cash accounts subject to deposit insurance. This would reduce retail investors' ability to receive market rates for their cash management investments.

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See Fidelity Comment Letter.

Second, the Commission continues to recognize that if the floating NAV alternatives resulted in a decrease in the size of the money market fund industry, they would adversely impact the availability of wholesale funding liquidity and access to capital for issuers. A reduction of wholesale funding liquidity available to arbitrageurs may magnify mispricing across securities markets. Similarly, a reduction in the size of affected money market funds or the money market fund industry as a whole may increase the costs of or decrease access to capital for issuers in short-term funding markets.

Third, the floating NAV alternative may involve significant operational, accounting, and tax challenges. In particular, alternatives involving switching retail funds from stable NAV to floating NAV may create accounting and tax complexities for some retail investors. For instance, some retail investors might not use the NAV method of accounting for gains and losses on money market fund shares.⁷⁵⁹ In addition, a floating NAV requirement may be incompatible with popular cash management tools such as check-writing and wire transfers that are currently offered for many stable NAV money market fund accounts, as well as the use of stable NAV money market funds by sweep vehicles.⁷⁶⁰

8. Countercyclical Weekly Liquid Asset Requirements

The final rule could have imposed countercyclical weekly liquid asset requirements. For instance, during periods of market stress, the minimum weekly liquid asset threshold could decrease, for example, by 50%. The final amendments could have specified the definitions of market stress that would trigger a change in weekly liquid asset thresholds. Alternatively, the final amendments could have specified that decreases in weekly liquid asset thresholds would be triggered by Commission administrative order or notice.

As discussed in the Proposing Release, such alternatives could help clarify that money market funds' liquidity buffers are meant for use in times of stress and may provide assurance to

⁷⁵⁹ See *supra* note 260 and accompanying text (discussing the NAV method).

⁷⁶⁰ See *supra* paragraph accompanying note 345.

investors that funds may utilize their liquidity reserves to absorb redemptions. To the degree that these alternatives may increase the willingness of affected funds to absorb redemptions out of daily or weekly liquid assets during times of stress, these alternatives may reduce liquidity costs borne by fund investors and may reduce incentives to redeem.

The Commission has not received comment in support of this alternative, but has received comment that countercyclical liquidity requirements are unnecessary.⁷⁶¹ Specifically, the commenter asserted that if there is no regulatory link between the level of liquidity and the potential imposition of fees or gates, money market fund managers will naturally be able to use liquid assets in a countercyclical way. The commenter further emphasized that countercyclicality would be challenging to administer by a regulator.

Investor redemptions out of institutional prime and institutional tax-exempt funds during market stress of 2020 demonstrated a high level of sensitivity of redemptions to threshold effects. The Commission continues to believe that any decrease in regulatory minimum thresholds may create investor concerns about liquidity stress in money market funds and trigger an increase in investor redemptions. Moreover, under the final amendments, affected money market funds will not be prohibited from operating below the daily or weekly liquid asset requirements. Importantly, the elimination of the tie between liquidity thresholds and fees and gates may more efficiently incentivize funds to use their liquidity buffers in times of stress, while removing threshold effects around weekly liquid asset levels.

9. Amendments Related to Potential Negative Interest Rates

As an alternative, the Commission could have restricted how money market funds may react to possible future market conditions resulting in negative fund yields by prohibiting, as proposed, money market funds from reducing the number of shares outstanding to seek to maintain a stable net asset value per share or stable price per share. In tandem, the Commission

⁷⁶¹ See Federated Hermes Comment Letter I.

could have required, as proposed, that government and retail money market funds to keep records identifying intermediaries able to process orders at a floating NAV and to no longer transact with intermediaries that are not able to process orders at a floating NAV, as proposed.

To the degree that, relative to the final rule, a floating NAV provides greater transparency to investors by showing daily fluctuations in the NAV, this alternative may increase transparency of stable NAV performance for investors in the event of a negative interest rate environment.⁷⁶² However, these relative benefits may be dampened, if not eliminated, by the final rule's disclosure requirements about the board's determination to use an RDM as well as account statement disclosures. The alternative requirement related to fund intermediaries may facilitate a transition of stable NAV funds to floating NAV in a negative yield environment. One commenter also indicated that this alternative may result in greater global consistency among money market funds after the ultimate discontinuation of share cancellation under the European Money Market Funds Regulation.⁷⁶³

However, this alternative may impose significant operational burdens and costs on investors. Many investors in stable NAV funds may prefer a stable NAV investment even in a negative rate environment, and this alternative would eliminate this possibility.⁷⁶⁴ In addition, for some investors, transitioning to a floating NAV could be even more complex and confusing than an RDM.⁷⁶⁵ Finally, a floating NAV requirement may be incompatible with popular cash management tools such as check-writing and wire transfers that are currently offered for many stable NAV money market fund accounts.

The alternative requirement that stable NAV funds determine that their intermediaries have the capacity to process the transactions at floating NAV and the related recordkeeping

⁷⁶² See, e.g., Northern Trust Comment Letter; CFA Comment Letter.

⁷⁶³ See, e.g., Northern Trust Comment Letter.

⁷⁶⁴ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Allspring Funds Comment Letter.

⁷⁶⁵ BNY Mellon Comment Letter.

requirements would also impose burdens on such funds. For example, affected money market funds may have to review their contracts with intermediaries, and some contracts may need to be renegotiated. Funds would have flexibility in how they make this determination for each financial intermediary, which may reduce these costs for some funds. Moreover, intermediaries that are currently unable to process transactions in stable NAV funds at a floating NAV may need to upgrade their processing systems to be able to continue to transact in government and retail funds. Many financial intermediary platforms that operate cash sweep programs and bank-like services using an infrastructure that does not accommodate a floating share price may be unable or unwilling to do so.⁷⁶⁶ To that effect, the alternative may adversely impact the size of intermediary distribution networks of some funds, which can limit access or increase the costs of investor access to some affected funds. Thus, the alternative may present operational difficulties for intermediaries offering stable NAV funds and may reduce the ability of investors to use stable NAV funds for sweep accounting and other cash management services. Overall, the final rule and its disclosure requirements may serve to maintain similar transparency to the alternative, without adverse effects on the ability of investors to have a stable NAV in the event of negative yields.

As another alternative, the final amendments could have mandated that in the event of persistent negative interest rates, all stable NAV funds must use an RDM. Requiring stable NAV funds to use an RDM would eliminate NAV fluctuations in a negative yield environment, which may preserve the use of stable NAV funds for sweep accounting. Such an alternative may, thus, preserve or increase demand for government and retail money market funds relative to the final rule. This alternative may also increase comparability across stable NAV funds relative to the final rule. However, such an alternative would eliminate valuable flexibility for stable NAV

⁷⁶⁶ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Morgan Stanley Comment Letter; BNY Mellon Comment Letter.

funds to float the NAV, which may be optimal for some funds given their investor clientele and capabilities of their intermediary networks.

10. Amendments Related to WAL/WAM Calculation

The final rule will amend rule 2a-7 to require that WAM and WAL are calculated based on the percentage of each security's market value in the portfolio, as proposed. The Commission could have instead based the calculation on amortized cost of each portfolio security. Similar to the final amendments, such an alternative would also enhance consistency and comparability of disclosures by money market funds in data reported to the Commission and provided on fund websites. Thus, the alternative would achieve the same benefits as the final amendments in terms of enhancing transparency for investors and enhancing the ability of the Commission to assess the risk of various money market funds and increasing allocative efficiency. However, relative to the final amendments, the alternative may give rise to higher compliance costs. While all money market funds are required to determine the market values of portfolio holdings, no such requirement exists for amortized costs of portfolio securities. Thus, funds that do not currently estimate amortized costs would be required to do so for the WAL and WAM calculation. Moreover, the Commission continues to believe that amortized cost may be a poor proxy of a security's value if market conditions change drastically due to, for example, liquidity or credit stress, and if the fund is unable to hold the security until maturity. This may distort WAL and WAM calculations during market dislocations – when comparable and accurate information about fund risks may be most important for investment decisions.

While commenters generally supported the proposed approach,⁷⁶⁷ one commenter disagreed with the proposed changes, but also with the alternative calculating WAM and WAL based on amortized cost of the portfolio instead of market value.⁷⁶⁸ Specifically, the commenter stated that it calculates WAM and WAL using market value for floating NAV money market

⁷⁶⁷ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Capital Group Comment Letter.

⁷⁶⁸ See Federated Hermes Comment Letter I.

funds and amortized cost for retail and government money market funds. The commenter also stated that the only meaningful difference in these methodologies would be if one of the issuers of the portfolio securities had a credit problem, in which case the fund would immediately shift to using market value.⁷⁶⁹ Further, the commenter stated that the fractional difference between the WAM and WAL calculated with amortized cost versus market value would not change either number calculated in actual days, rather than fractions of a day, and that any changes relative to the regulatory baseline would necessitate operational changes.

Differences between the WAM and WAL calculated with amortized cost versus market value may vary across funds and over time. As discussed above, while the difference between a fund's WAM or WAL calculated using amortized cost versus market value is likely to be small in many circumstances, there are also circumstances where this difference may be more significant, such as when a security's issuer experiences a credit event, during periods of market stress, or when interest rates rise rapidly, particularly for assets with longer maturities. We continue to believe that consistency and comparability of disclosures related to fund WAM and WAL across different money market funds and different types of money market funds may enhance Commission oversight and be valuable to investors, and we believe that requiring funds to use a uniform approach to the WAM and WAL calculations at all times mitigates any concerns about a fund not moving, or being slow to move, to a market-based value during times when there could be meaningful differences. In light of the above considerations, we continue to believe the final approach may be a more efficient way of accomplishing such comparability.

11. Form PF Amendments for Large Liquidity Fund Advisers

The Commission could have adopted Form PF amendments for large liquidity fund advisers with a greater level of detail requested. Alternatively, the Commission could have adopted the final Form PF amendments without including some or all of the new reporting

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Id.

requirements. For example, the final amendments could have amended Form PF without requiring new disclosures related to repurchase agreement transactions or related to investor information. Relative to the final amendments, alternatives that reduce (increase) the amount of information required to be reported in Form PF may have reduced (increased) the benefits of the reporting requirements as well as the direct and indirect costs borne by large liquidity fund advisers. As discussed above, one commenter questioned the value added of the proposed additional reporting,⁷⁷⁰ and other commenters generally criticized the purported benefits of enhanced Form PF reporting.⁷⁷¹ Importantly, compliance with reporting requirements may involve significant fixed costs. As a result, the elimination of one or several items from the final amendments may not lead to a proportional reduction in direct costs. Moreover, these alternatives would not align reporting of large liquidity funds with that of money market funds, which invest in the same short-term funding markets. The final amendments may present a more complete and comparable picture of the short-term financing markets in which liquidity funds invest, and in turn, enhance the Commission and FSOC's ability to monitor and assess short-term financing markets and facilitate better regulatory oversight of those markets and their participants.

12. Disclosures

a. Eliminating Website Disclosure of Fund Liquidity Levels

The final amendments could have eliminated the requirement that money market funds post their daily and weekly liquid asset levels on their websites. As discussed above, the Commission understands that the public nature of fund liquid asset disclosures, in combination with the regulatory thresholds for the potential imposition of fees and gates, may have triggered a run on institutional money market funds and made other funds reluctant to use liquid assets to absorb redemptions if it meant approaching or falling below the regulatory threshold.

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See supra note 709 and accompanying text; *see also* NYC Bar Comment Letter on File No. S7-01-22.

Commenters have generally not discussed this alternative, although one commenter stated that the website disclosure should not be eliminated because, once the link of a potential fee or gate imposition is removed, the incentive for investors to monitor and redeem based on liquidity is mitigated. The final amendments would partly mitigate run incentives surrounding disclosures of weekly liquid assets, by removing the tie between weekly liquid assets and the potential imposition of fees and gates, but also increasing minimum daily and weekly liquidity requirements and imposing a requirement to promptly report liquidity threshold events. Moreover, money market funds play an important asset transformation role and inherently carry liquidity risks. We continue to believe that public disclosures of money market fund liquidity convey important information to investors about the liquidity risks of their investments.

b. Alternatives to Form N-MFP Amendments

The Commission could have adopted Form N-MFP amendments without including some or all of the new reporting requirements.⁷⁷² While these alternatives may have reduced compliance burdens compared to the final amendments, compliance with disclosure requirements may involve significant fixed costs. As a result, the elimination of one or several items from the final amendments may not lead to a proportional reduction in compliance burdens. Moreover, information about repurchase agreement transactions, fund liquidity management, investor concentration and composition, and sales of securities into the market would provide important benefits of transparency for investors and would enhance Commission oversight.

The final amendments will require the disclosure of every liquidity fee in the reporting period by date. Alternatively, the final amendments could have required the disclosure of less information about when the fund applied liquidity fees. For example, the final amendments could have required disclosure of the lowest, median, and highest liquidity fee a fund applied in a given

⁷⁷² See, e.g., Federated Hermes Comment Letter I; ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; CCMR Comment Letter.

reporting period. Commenters did not generally discuss such alternatives or alternatives to similar proposed reporting requirements for swing pricing. Alternatives involving less information about fund liquidity fee practices and eliminating current website disclosures of daily fund flows would reduce the scope of the economic benefits and costs of the final amendments described above. To the degree that disclosures of liquidity fees may make liquidity fees more salient to investors and may lead funds to compete on fees, alternatives involving less disclosure about liquidity fees can reduce those effects. Moreover, to the degree that granular disclosure about historical liquidity fees can incentivize or inform strategic redemption behavior, alternatives involving less disclosure about liquidity fees can reduce those effects.

c. Alternatives to Form N-CR Amendments

The final amendments could have defined a liquidity threshold event for purposes of board notification and/or Form N-CR reporting to reflect a specified percentage decline from a fund's preferred weekly liquid asset and daily liquid asset.⁷⁷³ Relative to the final rule, such an approach could offer additional flexibility for funds in setting up their board reporting and oversight of liquidity management. The magnitude of such benefits may be small if board notification thresholds are lower than Form N-CR reporting thresholds because fund managers are likely to keep the board apprised of any liquidity events triggering Form N-CR reporting. In addition, to the degree that these alternatives would allow funds to set up different Form N-CR reporting thresholds, they would reduce comparability of Form N-CR reported events for investors. Moreover, funds and fund managers may be incentivized by competitive pressures to reduce the salience of their liquidity threshold events, leading them to select thresholds for board and Form N-CR reporting that are lower than those in the final rule.

The final amendments could also have required money market funds to make notices concerning liquidity threshold events public with a delay (*e.g.*, 15, 30, or 60 days). As a related

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See, e.g., ICI Comment Letter.

alternative, the Commission could have triggered the Form N-CR reporting requirement in the final rule if a fund is 50% below each of the daily and weekly liquidity requirements for a period of consecutive days.⁷⁷⁴ As another alternative, the final amendments could have required that some or all information about the liquidity threshold event be kept confidential upon filing. Under the baseline, such funds are required to report daily and weekly liquid assets daily on fund websites. Relative to the final rule, these alternatives would introduce delays to the reporting of liquidity threshold events to investors on Form N-CR, reduce the frequency of such reporting, or decrease the amount of information in liquidity threshold event notices available to investors. To the degree that the publication of such notices provides investors with additional information about fund liquidity management and can trigger investor redemptions out of funds with low levels of weekly and daily liquid assets, the alternatives may reduce the risk of redemptions around liquidity thresholds and the increase the willingness of funds to absorb redemptions out of their weekly liquid assets relative to the final amendments.⁷⁷⁵ However, relative to the final amendments, the alternatives would reduce the availability of a central source that investors could use to identify when money market funds fall more than 50% below liquidity requirements and understand the circumstances leading to the decline in liquidity. The delayed reporting alternative also would reduce the amount of information available to investors surrounding the context for the liquidity threshold events as notices are likely to clarify reasons for the threshold event. Thus, the alternative would reduce transparency for investors around liquidity management of affected money market funds, which may reduce allocative efficiency. Notably, a delay in publication of the notices may increase staleness of the information in the notices available to investors.

In addition, the final rule could have amended Form N-CR to include some of the new collections of information on Form N-MFP. For example, the final rule could have amended

⁷⁷⁴ See, e.g., Federated Hermes Comment Letter I.

⁷⁷⁵ See, e.g., Dechert Comment Letter.

Form N-CR to include information about sales of securities into the market of prime funds that exceed a particular size. This alternative would enhance the timeliness of such reporting. Thus, the alternative may enhance transparency about fund liquidity management for investors, which may enhance informational and allocative efficiency and Commission oversight. However, the alternative would increase direct reporting burdens related to the filing of Form N-CR – costs that may flow through in part or in full to end investors in the form of fund expenses. Moreover, timely reporting of prime funds’ sales of portfolio securities may signal fund liquidity stress to investors even where funds may be able to maintain their daily and weekly liquidity levels. This may influence investor decisions to redeem out of reporting funds; thus, relative to the final amendments, the alternative may place heavier redemption pressure on reporting funds.

With respect to the structured data requirement for Form N-CR, the final amendments could have required Form N-CR to be submitted in the Inline eXtensible Business Reporting Language (Inline XBRL), rather than in N-CR-specific XML. We did not receive any comments on this alternative. As with N-CR-specific XML, Inline XBRL is a structured data language and would provide similar benefits to investors (*e.g.*, facilitating analysis of the event-related disclosures reported by money market funds on Form N-CR and thereby providing more transparency into potential risks associated with money market funds). From a filer compliance perspective, money market funds have experience complying with Inline XBRL compliance requirements, because they are required to tag prospectus risk/return summary disclosures on Form N-1A in Inline XBRL.⁷⁷⁶ This existing experience would counter the incremental implementation cost of complying with an Inline XBRL requirement under the alternative.

However, unlike N-CR-specific XML, which the Commission would create specifically for Form N-CR submissions on EDGAR, Inline XBRL is an existing data language that is

⁷⁷⁶ See Instruction C.3.g to Form N-1A; 17 CFR 232.405(b)(2). Effective July 2024, money market funds will also be subject to Inline XBRL requirements for shareholder reports they file on Form N-CSR. See Tailored Shareholder Reports Adopting Release, *supra* note 347; 17 CFR 232.405(b)(2).

maintained by a public standards setting body, and it is used for different disclosures across various Commission filings (and for uses outside of regulatory disclosures). Due to the number of individual transactions that might be reported as Form N-CR data and the constrained nature of the content of Form N-CR and the absence of a clear need for the N-CR disclosures to be used outside the Form N-CR context, the alternative to include an Inline XBRL requirement might result in formatting for human readability of tabular data within a web browser that provides no additional analytical insight. This would likely include more complexity than is called for by the disclosures on Form N-CR, thus potentially making the disclosures more burdensome to use for analysis and possibly muting the benefits to investors of a structured data requirement, compared to the final rule's N-CR-specific XML requirement.

13. Sponsor Support

The final amendments could have required money market fund sponsors to provide explicit sponsor support to cover dilution costs. As discussed in the Proposing Release, dilution occurs because shareholders remaining in the fund effectively buy back shares at NAV from redeeming investors. The assets underlying those shares are eventually sold at a price that may differ from that NAV for the reasons described in the baseline, causing dilution in some cases. This alternative may significantly change incentives around the liquidity mismatch between money market fund assets and liabilities. Specifically, this alternative would give fund sponsors a more direct incentive to manage the amount of dilution risk they impose on a fund via their choice of fund investments.

As discussed in the Proposing Release, directly exposing the sponsor, rather than money market fund investors, to the dilution risk associated with the difference between NAV and the ultimate liquidation value of the fund's underlying securities could have several benefits. First, money market funds may have a stronger incentive to overcome any operational impediments that expose them to unnecessary risk. Second, the amount of required operating capital to process redemptions/subscriptions would be higher for money market funds that held relatively less

liquid securities, and money market funds would have to charge higher fees to raise that capital. Such fees would externalize the costs of investing in less liquid assets via money market funds. As those fees increase, money market funds that hold less liquid assets might become less desirable to investors, and money market fund investors might select into other structures, such as closed-end funds, that are a more natural fit with illiquid assets. These benefits may be reduced to the degree that the sponsor support requirement may incentivize money market funds to take additional risks to recoup the sponsor's costs or may incentivize fund managers to increase risk taking due to the backstop of the sponsor support.

The effects of sponsor support on investors may be mixed. Sponsor support may increase the ability of investors to redeem their shares in full without bearing liquidity costs. However, sponsor support could lead some investors to believe that their investments carry no risk and may make investors less discerning in their choice of money market fund allocations. Moreover, sponsor support reduces investor risk only to the degree that fund sponsors are well capitalized and easily capable of providing sponsor support. Uncertainty surrounding the ability of the sponsor to provide support to the money market fund could trigger a wave of shareholder redemptions, particularly during stressed conditions.

The Commission has received comment that such an alternative approach may significantly disrupt the money market fund industry.⁷⁷⁷ First, it would make sponsoring money market funds a capital intensive business, which may create barriers to entry into the money market fund industry, disadvantage smaller funds and fund complexes, and increase concentration. Second, it may cause fund sponsors to opt, instead, for other open-end funds, ETFs, or closed-end funds as vehicles for certain less liquid assets. Third, since the costs of sponsor support may be passed along to investors in part or in full in the form of, for example, higher expense ratios, it may reduce fund yields after expenses. These factors are, thus, likely to

⁷⁷⁷ See, e.g., CCMR Comment Letter, Fidelity Comment Letter; see also 87 FR 7320.

reduce the attractiveness of money market funds to investors and the number of available money market funds, adversely impacting investor choice and the efficiency of investors' portfolio allocations. The alternative, may thus, significantly reduce the number of fund sponsors offering money market funds and the number of money market funds available to investors. These adverse effects may flow through to institutions, such as banks, and to leveraged participants, such hedge funds, that rely on banks for liquidity and capital formation.

14. Capital Buffers

The final amendments could have required that money market funds maintain a capital or "NAV" buffer,⁷⁷⁸ or a specified amount of additional assets available to absorb daily fluctuations in the value of the fund's portfolio securities. For example, one option would require that stable NAV money market funds have a risk-based NAV buffer of up to 1% to absorb day-to-day fluctuations in the value of the funds' portfolio securities. Floating NAV money market funds could reserve their NAV buffers to absorb fund losses under rare circumstances only, such as when a fund suffers a large drop in NAV or is closed. The required minimum size of a fund's NAV buffer could be determined based on the composition of the money market fund's portfolio, with specified buffer requirements for daily liquid assets, other weekly liquid assets, and all other assets.

Some commenters supported the use of capital buffers as a mechanism to stabilize money market funds in times of market stress.⁷⁷⁹ One commenter indicated that operationalizing the capital buffer by adding a loss-bearing, subordinated class of liabilities would not require changing the structure of current money market fund shares, but would make them less risky by

⁷⁷⁸ Capital (or "NAV") buffers, which could be structured in a variety of ways, can provide dedicated resources within or alongside a fund to absorb losses and can serve to absorb fluctuations in the value of a fund's portfolio, reducing the cost to taxpayers in case of a run. *See* PRESIDENT'S WORKING GRP. ON FIN. MKTS., *supra* note 544.

⁷⁷⁹ *See, e.g.*, Profs. Cecchetti and Schoenholtz Comment Letter; Prof. Hanson *et al.* Comment Letter; Better Markets Comment Letter; Systemic Risk Council Comment Letter.

converting them into senior liabilities.⁷⁸⁰ Some commenters suggested the use of a bank safety standard that would implement a capital requirement of 3 to 4% of unsecured, non-government assets and suggested that such a buffer would only depress returns by approximately 5 basis points (0.05%).⁷⁸¹ One commenter indicated that capital buffers would aid money market funds by providing a layer of protection for investors, reducing the incentive to run in a crisis, and reducing the incentive for prime money market funds to take excessive risk.⁷⁸² This commenter also suggested the use of a subordinated share class that would absorb losses ahead of longer-term investors and, in exchange for bearing potential losses, the subordinated shareholders would be paid a risk premium.⁷⁸³ This commenter also suggested an alternative approach that would require funds to buy capital protection from a regulated bank.⁷⁸⁴ Other commenters stated that capital buffers would allow money market funds to sustain broad-based declines in asset values and to continue funding shareholder redemptions without resorting to fire sales that further depress share values in times of stress.⁷⁸⁵ One commenter suggested that a mandatory buffer would reduce moral hazard and increase discipline in the management of money market funds, increasing investor confidence that money market funds could weather market stress.⁷⁸⁶

The capital buffer alternative may have four benefits. First, capital buffers may add ex ante loss-absorption capacity to a money market fund that could mitigate money market fund investors' risk of losses.⁷⁸⁷ This may reduce the incentive to redeem shares quickly in response to small losses or concerns about the liquidity of the money market fund portfolio, particularly during periods of severe liquidity stress.

⁷⁸⁰ See Profs. Cecchetti and Schoenholtz Comment Letter.

⁷⁸¹ See, e.g., Profs. Cecchetti and Schoenholtz Comment Letter; Prof. Hanson *et al.* Comment Letter.

⁷⁸² See Prof. Hanson *et al.* Comment Letter.

⁷⁸³ *Id.*

⁷⁸⁴ *Id.*

⁷⁸⁵ See, e.g., Better Markets Comment Letter; Systemic Risk Council Comment Letter.

⁷⁸⁶ See Better Markets Comment Letter.

⁷⁸⁷ See, e.g., PRESIDENT'S WORKING GRP. ON FIN. MKTS., *supra* note 544.

Second, a NAV buffer would require money market funds to provide explicit sponsor support rather than the implicit and uncertain support under the current baseline. This would require funds to internalize some of the cost of the discretionary capital support sometimes provided to money market funds and to define in advance how losses will be allocated. In addition, a NAV buffer could reduce fund managers' incentives to take risk beyond what is desired by fund shareholders because investing in less risky securities reduces the probability of buffer depletion.

Third, a NAV buffer may also provide counter-cyclical capital to the money market fund industry because once a buffer is funded it remains in place regardless of redemption activity. With a buffer, redemptions increase the relative size of the buffer because the same dollar buffer now supports fewer assets. The NAV buffer, thus, strengthens the ability of the fund to absorb further losses, reducing investors' incentive to redeem shares.

Fourth, by reducing the NAV variability in money market funds, a NAV buffer may facilitate and protect capital formation in short-term financing markets during periods of modest stress. A NAV buffer could enable funds to absorb small losses and thus could reduce the need to trade into stressed markets. Thus, by adding resiliency to money market funds and enhancing their ability to absorb losses, a NAV buffer may benefit capital formation in the long term. A more stable money market fund industry may produce more stable short-term funding markets, which could provide more reliability as to the demand for short-term credit to the economy.

The Commission has also received comments that did not support the use of capital buffers and suggesting that such a mechanism would decrease the utility and attractiveness of money market funds and cause fund sponsors to exit the industry.⁷⁸⁸ One commenter suggested that capital buffers are unnecessary and would severely and negatively impact shareholders, stating that capital buffers would not have been useful in March 2020 because buffers pertain to

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See, e.g., ICI Comment Letter; Fidelity Comment Letter; CCMR Comment Letter.

asset quality rather than liquidity, and noting also that institutional prime funds already operate with a floating NAV, which effectively addresses asset quality in a manner analogous to capital buffers.⁷⁸⁹ This commenter suggested that if buffers are funded by retaining rather than distributing income, the buffers would take a significant amount of time to accumulate and, if funded by fund sponsors, managing money market funds would no longer be economically feasible.⁷⁹⁰ Some commenters stated that even modestly sized capital buffers would substantially increase the cost of operating prime money market funds, to an extent that would likely prevent sponsors from offering such funds.⁷⁹¹

The Commission continues to believe that this alternative may give rise to significant direct and indirect costs. In terms of direct costs, capital buffer requirements may be challenging to design and administer. First, from the standpoint of design of capital buffers, calibrating the appropriate size of the buffer as well as establishing the parameters for when a floating NAV fund should use its NAV buffer could present operational and implementation difficulties and, if not done effectively, could contribute to self-fulfilling runs on funds experiencing large redemptions. Second, from the standpoint of administering capital buffers, floating NAV funds would need to establish policies and procedures around the use of buffers, replenishing capital buffers when they are depleted and raising requisite financing, regulatory reporting, and investor disclosures about buffers, among other things. Depending on how a capital buffer is structured (*e.g.*, as sponsor provided capital or as a subordinated share class requiring shareholder approval), the alternative may involve other administrative, accounting, tax, and legal challenges and costs for fund sponsors and investors.

Importantly, the alternative may also involve three sets of indirect costs. First, the Commission continues to believe that the alternative would result in opportunity costs associated

⁷⁸⁹ See Fidelity Comment Letter.

⁷⁹⁰ *Id.*

⁷⁹¹ See, *e.g.*, CCMR Comment Letter.

with maintaining a NAV buffer. Those contributing to the buffer would deploy valuable scarce resources to maintain a NAV buffer rather than being able to use the funds elsewhere. Estimates of these opportunity costs are not possible because the relevant data is not currently available to the Commission.

Second, entities providing capital for the NAV buffer, such as the fund sponsor, would expect to be paid a return that sets the market value of the buffer equal to the amount of the capital contribution. Since a NAV buffer is designed to absorb the same amount of risk regardless of its size, the promised yield, or cost of the buffer, increases with the relative amount of risk it is expected to absorb (also known as a leverage effect).

Third, money market funds with buffers may avoid holding riskier short-term debt securities (like commercial paper) and instead hold a higher amount of low yielding investments like cash, Treasury securities, or Treasury repos. This could lead money market funds to hold more conservative portfolios than investors may prefer, given tradeoffs between principal stability, liquidity, and yield. Moreover, the costs of establishing and maintaining a capital buffer would decrease returns to fund investors. The increased costs and decreased returns of a capital buffer requirement may decrease the size of the money market fund sector, which would affect short-term funding markets, and could lead to increased industry concentration. Moreover, this may alter competition in the money market fund industry as capital buffer requirements may be easier to comply with for bank-sponsored funds, funds that are members of large fund families, and funds that have a large parent.

Crucially, a NAV buffer does not protect shareholders completely from the possibility of heightened rapid redemption activity during periods of market stress, particularly in periods where the buffer is at risk of depletion, such as during March 2020. As the buffer becomes impaired (or if shareholders believe the fund may suffer a loss that exceeds the size of its NAV buffer), shareholders have an incentive to redeem shares quickly because, once the buffer fails, shareholders will experience sudden losses. Thus, the Commission continues to believe that

capital buffers are unlikely to have prevented the liquidity stresses that arose in March 2020. At the same time, capital buffers could lead some investors to believe that their investments carry no risk, which may influence investor allocations and adversely impact allocative efficiency.

15. Minimum Balance at Risk

The final amendments could have required that a portion of each shareholder's recent balance in a money market fund be available for redemption only with a time delay. Under the alternative, all shareholders could redeem most of their holdings immediately without being restricted by the minimum balance at risk. This alternative also could include a requirement to put a portion of redeeming investors' holdback shares first in line to absorb losses that occur during the holdback period. A floating NAV fund could be required to use a minimum balance at risk mechanism to allocate losses only under certain rare circumstances, such as when the fund has a large drop in NAV or is closed.

Such an alternative could provide some benefits to money market funds. First, it would subordinate a portion of redeeming investors' shares to put them at greater risk if the fund suffers a loss, forcing redeeming shareholders to absorb liquidity costs during periods of severe market stress when liquidity is particularly costly and allocating liquidity costs to investors demanding liquidity when the fund itself is under stress.⁷⁹² Redeeming shareholders would bear first losses when the fund first depletes its buffer and then the fund's value falls below its stable share price within 30 days after their redemption. If the fund sells assets to meet redemptions, the costs of doing so would be incurred while the redeeming investor is still in the fund because of the delay in redeeming holdback shares. Third, it would provide the fund with a period of time to obtain cash to satisfy the holdback portion of a shareholder's redemption. This may provide time for potential losses in fund portfolios to be avoided since distressed securities could trade at a heavy discount in the market but may ultimately pay in full at maturity.

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See, e.g., PRESIDENT'S WORKING GRP. ON FIN. MKTS., *supra* note 544.

The Proposing Release recognized that implementing such an alternative would involve operational challenges and direct implementation costs. Such costs include costs of converting existing shares or issuing new holdback and subordinated holdback shares; changes to systems that would allow record-keepers to account for and track the minimum balance at risk and allocation of unrestricted, holdback, or subordinated holdback shares in shareholder accounts; and systems to calculate and reset average account balances and restrict redemptions of applicable shares. In addition, commenters indicated that such costs would extend to intermediaries and service providers and would be significant.⁷⁹³ Funds subject to a minimum balance at risk may also have to amend or adopt new governing documents to issue different classes of shares with different rights: unrestricted shares, holdback shares, and subordinated holdback shares.

Moreover, this alternative would give rise to a number of indirect costs. First, the alternative may have different and unequal effects on investors in stable NAV and floating NAV money market funds. During the holdback period, investors in a stable NAV fund would only experience losses if the fund breaks the buck. Investors in a floating NAV fund, however, are always exposed to changes in the fund's NAV and would continue to be exposed to such risk for any shares held back. These differential effects could reduce investor demand for floating NAV money market funds.

Second, under the MBR alternative, there would still be an incentive to redeem in times of fund and market stress. The alternative could force shareholders that redeem more than a certain percent of their assets to pay for any losses, if incurred, on the entire portfolio on a ratable basis. The contingent nature of the way losses are distributed among shareholders forces early redeeming investors to bear the losses they are trying to avoid. Money market funds may choose to meet redemptions by selling assets that are the most liquid and have the smallest capital

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See, e.g., Fidelity Comment Letter.

losses. Once a fund exhausts its supply of liquid assets, it may sell less liquid assets to meet redemption requests, possibly at a loss. If in fact assets are sold at a loss, the value of the fund's shares could be impaired, motivating shareholders to be the first to leave.

Third, the minimum balance at risk alternative would involve a loss of liquidity for redeeming investors akin to a partial redemption gate, which may reduce the utility of money market funds for investors and may cause fund sponsors to exit the industry.⁷⁹⁴ Commenters stated that the alternative would alter money market funds significantly and drive investors and intermediaries away from the product to unregulated or less-regulated investment options, causing disruption to the short-term financing markets.⁷⁹⁵ Another commenter also opposed the alternative and suggested that it reduces liquidity for retail and institutional investors.⁷⁹⁶

Fourth, the alternative may not have addressed the liquidity stresses that occurred in March 2020.⁷⁹⁷ The minimum balance at risk alternative generally impairs the liquidity of money market fund investments. To the degree that many investor redemptions in March 2020 were driven by exogenous liquidity needs (arising out of the Covid-19 pandemic), the Commission continues to believe that, under the alternative, investors would still have strong incentives to redeem assets they could in order access liquidity.

16. Liquidity Exchange Bank Membership

In the Proposing Release, the Commission discussed an alternative requiring prime and tax-exempt money market funds to be members of a private liquidity exchange bank ("LEB"). The LEB would be a chartered bank that would provide a liquidity backstop during periods of market stress. Money market fund members and their sponsors would capitalize the LEB through initial contributions and ongoing commitment fees, for example. During times of market stress,

⁷⁹⁴ *Id.*

⁷⁹⁵ *Id.*

⁷⁹⁶ *See* Americans for Tax Reform Comment Letter.

⁷⁹⁷ *See, e.g.,* Fidelity Comment Letter; ICI Comment Letter.

the LEB would purchase eligible assets from money market funds that need cash, up to a maximum amount per fund. The intent of the LEB would be to diminish investors' incentive to redeem in times of market stress while having the benefit of pooling liquidity resources rather than requiring each money market fund to hold higher levels of liquidity separately.

This alternative, as well as broader industry-wide insurance programs, could mitigate the risk of liquidity runs in money market funds and their detrimental impacts on investors and capital formation. In the Proposing Release, the Commission discussed how the alternative could replace money market funds' historical reliance on discretionary sponsor support, which has covered capital losses in money market funds in the past but, as discussed above, also contributes to these funds' vulnerability to liquidity runs. In addition, some sort of collective emergency insurance fund could be helpful to reduce the moral hazard of funds that may be reliant on future Federal Reserve facilities in times of market stress.

The Commission has received several comments in response to the proposal, which discussed the LEB alternative, and these comments did not support the LEB alternative as a realistic solution to improve money market funds' resiliency or limit future runs on money market funds.⁷⁹⁸ Commenters emphasized two key sets of costs. First, a LEB would be complicated and require significant time and money to develop and operate.⁷⁹⁹ Second, pooling capital from various money market funds could raise moral hazard and conflict of interest concerns, because money market funds relying on the LEB would not have an incentive to improve their own liquidity management.⁸⁰⁰

As discussed in the proposal, the LEB alternative may not significantly reduce the contagion effects from heavy redemptions at money market funds without undue costs. Specifically, because of the difficulties and costs involved in creating effective risk-based pricing

⁷⁹⁸ See, e.g., ICI Comment Letter; Fidelity Comment Letter; Americans for Tax Reform Comment Letter.

⁷⁹⁹ See, e.g., Fidelity Comment Letter; Americans for Tax Reform Comment Letter.

⁸⁰⁰ *Id.*

for insurance and additional regulatory structures necessary to offset adverse incentive effects of membership in the LEB, this alternative has the potential to create moral hazard and encourage excessive risk-taking by money market funds. If the alternative increases moral hazard and decreases corresponding market discipline, it may in fact increase rather than decrease money market funds' susceptibility to liquidity runs. These incentives may be countered by imposing a very costly regulatory structure and risk-based pricing system; however, related costs are likely to be passed along to investors and may reduce the attractiveness of money market funds relative to bank products and other cash management tools. Finally, it may be difficult to create private insurance at an appropriate cost and of sufficient capacity for a several trillion-dollar industry that tends to have highly correlated tail risk.

17. Alternative Compliance and Filing Periods

The Commission considered alternative compliance dates for various aspects of the final amendments. First, the removal of the existing redemption gate provision and the link between weekly liquid assets and the imposition of a liquidity fee in rule 2a-7 are effective when the final rule is effective. As an alternative, the Commission could have adopted these provisions with a longer (such as a 6 month or a 12 month) effective date. Such alternatives would provide affected money market funds with more time to comply with these amendments. We believe that the removal of these provisions will be simple to implement.⁸⁰¹ Moreover, as discussed throughout this release, the Commission understands that the tie between weekly liquid asset thresholds and fees and gates did not provide intended benefits during March of 2020, but likely contributed to investor redemptions during the peak of market stress. Thus, these amendments may reduce self-fulfilling run incentives that may arise out of the tie between weekly liquid assets and redemption gates or fees, and alternatives delaying the effective date of these amendments may contribute to run risk in affected money market funds.

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See State Street Comment Letter.

Second, the final amendments to minimum liquidity requirements have a compliance date that is 6 months after the effective date. As an alternative, these amendments could have been adopted with a longer compliance period, such as 12 months.⁸⁰² This alternative would provide additional time for affected funds to comply with the amended minimum liquidity requirements. For example, to the degree that some affected money market funds would have to change their portfolio composition by holding new assets, such funds would be required to make a determination that each security is an “eligible” security presenting minimal credit risk to the fund and have corresponding written records about the review. In addition, money market funds typically roll over assets when they mature and, if funds are required to change their portfolio composition to comply with the final rule, they may have to adjust this rollover process in favor of shorter-term securities of the same or similar issuers. To the degree that some investors may seek to reallocate their investments out of affected money market funds and into other cash management tools, a longer compliance period may allow funds time to stabilize their portfolios in the aftermath of potential investor redemptions. Finally, a longer compliance period may be especially valuable for funds most affected by other requirements of the final rule, such as the liquidity fee and reporting requirements. However, as discussed in section II.H, amendments to the liquidity minimums under rule 2a-7 represent increases to an existing framework, and as quantified in sections IV.C.2 and IV.D.2, many funds already maintain daily and weekly liquidity levels close to the newly adopted minimums. Moreover, the current rising rate environment may incentivize affected money market funds to increase their daily and weekly liquidity and decrease the overall fund maturity, to take advantage of the increase in yields. To the degree that many affected funds may already be in compliance with the new thresholds, the benefits of these alternative compliance periods relative to the final rule may be limited. For instance, weighted average daily liquid asset level of affected funds is currently above 50%, with

weighted average weekly liquid asset level currently above 60% of a fund's portfolio, well above the thresholds imposed by the final rule.⁸⁰³

Third, the Commission could have adopted alternative compliance dates for the mandatory and discretionary liquidity fee requirements. Under the final rule, affected funds will have to comply with the mandatory liquidity framework within 12 months after the effective date, and the discretionary liquidity framework within 6 months of that date. The Commission considered several related alternatives. For example, the final rule could have included a 2-year compliance period for the mandatory liquidity fee framework, as recommended by commenters for the proposed swing pricing requirement.⁸⁰⁴ As another alternative, the final rule could have included a 1-year compliance period for the discretionary liquidity framework. Similarly, the final rule could have included the same 2-year or 1-year compliance period for both the mandatory and the discretionary liquidity frameworks. These alternatives would provide affected money market funds with additional time to adapt their operations and systems, coordinate with intermediaries and third party vendors, and implement the required policies and procedures. Notably, unlike the swing pricing framework, affected funds may already be familiar with liquidity fees due to their baseline ability to impose liquidity fees when the fund's weekly liquid assets fall below 30% under the current rules and the current requirement to impose a default liquidity fee when a fund's weekly liquid assets fall below 10% unless the board determines such a fee is not in the fund's best interests. Thus, many funds and their intermediaries may be positioned to more efficiently comply with the amended liquidity fee framework compared to the proposed swing pricing requirements. Importantly, such alternatives would delay the implementation of liquidity fees as an anti-dilution tool and reduce the amount of dilution

⁸⁰³ See *Money Market Fund Statistics Form N-MFP Data*, available at <https://www.sec.gov/files/mmf-statistics-2023-03.pdf>.

⁸⁰⁴ See, e.g., SIFMA AMG Comment Letter; ICI Comment Letter; Invesco Comment Letter; State Street Comment Letter; Bancorp Comment Letter; Federated Hermes Comment Letter I; Capital Group Comment Letter; CCMR Comment Letter.

recaptured by funds benefitting non-redeeming investors until the compliance date, relative to the final rule.

Fourth, the Commission has considered alternative effective dates for the disclosure requirements in the final rule. For example, the final rule could have included a 12 month implementation period for any new and revised reporting requirements as suggested by some commenters in response to the proposal.⁸⁰⁵ As another alternative, the final rule could have included an 18 or 24 month implementation period for all reporting and disclosure requirements as suggested by other commenters.⁸⁰⁶ Similar to the above alternatives regarding longer compliance periods for the liquidity fee framework, such alternatives could reduce costs and provide greater flexibility to affected money market funds in complying with the final amendments. However, as discussed in section II.H, the final rule removes several of the proposed reporting requirements that are likely to be among the most burdensome for affected funds, including the proposed requirements about lot-level reporting and disaggregated reporting for repurchase agreements in Form N-MFP and Form PF. Such modifications to the final amendments may reduce compliance burdens on filers relative to the proposal. While the final disclosure and reporting requirements will still pose cost increases on affected funds, as estimated in section V (PRA), the Commission continues to believe that the final disclosure and reporting amendments will result in important benefits for transparency to investors and Commission oversight. As discussed in section II.H, we believe that the implementation period for amendments to disclosures in the final rule provides adequate time for affected funds and advisers to compile and review the information that must be disclosed. The Commission also could have adopted alternative filing periods for various forms. For example, the Commission could have extended the filing period for Form N-MFP to 7, 8, or 10 business days after the end of each month instead of the current 5 business day filing period. Such alternatives would

⁸⁰⁵ See, e.g., ICI Comment Letter; Invesco Comment Letter; State Street Comment Letter.

⁸⁰⁶ See T. Rowe Comment Letter.

increase the amount of time affected funds have to review and verify reported data and information, which can reduce the risk of error in the submitted data and information to the Commission. Importantly, as discussed in section II, the final rule will remove some of the most data intensive reporting requirements of lot-level reporting and disaggregated reporting of repurchase agreements, which may reduce these benefits of the alternatives relative to the final rule. Moreover, such alternatives would increase filing delays and reduce the timeliness of information available to investors and to the Commission. These effects may be particularly acute in times of market stress, when there may be greater investor scrutiny of money market funds and their liquidity risk.

E. Effects on Efficiency, Competition, and Capital Formation

The final amendments are intended to reduce run risk, mitigate the liquidity externalities transacting investors impose on non-transacting investors, and enhance the resilience of money market funds, which may serve to protect money market fund investors. To the degree that the final amendments would increase the resilience of money market funds, they may also enhance the availability of wholesale funding liquidity to market participants and increase their ability to raise capital, particularly during severe market stress, facilitating capital formation. In addition, the final amendments may reduce the probability that runs would result in future government interventions in securities markets, inform investors about liquidity risks of their money market fund investments, and enhance the ability of investors to optimize their portfolio allocations, contributing to greater informational and allocative efficiency.

The final amendments may enhance the efficiency of liquidity provision. Specifically, money market funds and issuers of short-term debt that money market funds hold benefit from perceived government backstops and the safety and soundness of the financial system. When the liquidity of underlying assets in money market fund portfolios is impaired, investors benefit from selling money market fund shares before or instead of selling assets that funds hold. Thus, in times of market stress, liquidity demand may be directed to money market funds even though the

relative cost of liquidity in money market funds may be greater, resulting in inefficient provision of liquidity. While the final amendments would not result in money market funds fully internalizing the costs of investing in illiquid assets, to the degree that the final amendments would reduce the need for future implicit government backstops in times of stress, the final amendments may result in more efficient provision of liquidity.

Moreover, the final liquidity fee framework may enhance allocative efficiency. To the degree that some institutional investors may not be aware of the dilution risk of affected money market funds, the liquidity fee requirement may increase investor awareness of such risks. As discussed above, the liquidity fee requirement could cause some investors to move their assets to government money market funds to avoid the possibility of paying liquidity costs of redemptions. Government money market funds may be a better match for these investors' preferences, however, in that government money market funds face lower liquidity costs and these investors may be unwilling to bear any liquidity costs. In addition, the liquidity fee framework may also attract new investors, such as investors that tend to redeem infrequently, into prime and tax-exempt money market funds. Moreover, this aspect of the final rule may dampen spillovers of run risk from money market funds to other vehicles and markets in times of stress.

The final disclosure requirements are expected to enhance informational efficiency. To the degree that some investors may currently be uninformed about liquidity risks of money market fund investments, the liquidity fee and disclosure requirements may increase transparency about liquidity costs transacting investors impose on remaining fund investors and liquidity risks in money market funds. While many investors may use money market funds as cash equivalents, money market funds use capital subject to daily or intraday redemptions to invest in portfolios that may include less liquid assets. This gives rise to liquidity risk and liquidity externalities between transacting and non-transacting investors, as discussed throughout the release. The possibility that a fund may charge a liquidity fee as a result of net redemptions,

as well as the final disclosure requirements may help inform investors about the liquidity risks inherent in money market funds and liquidity costs of redemptions, particularly during times of stress. To the degree that greater transparency about liquidity risk of money market funds may lead some risk averse investors to use other instruments, such as banking products, in lieu of money market funds for cash management, allocative efficiency may increase.

The final amendments may have three groups of competitive effects. First, amendments to liquidity requirements may affect competition among prime money market funds. As discussed in detail in section IV.C.2, many affected funds already have liquidity levels that would meet or exceed the final minimum daily and weekly liquid asset thresholds. However, other funds would have to rebalance their portfolios to come into compliance with the final amendments, which may reduce the yields they are able to offer investors. The final amendments may, thus improve the competitive standing of funds that currently have higher levels of daily and weekly liquidity relative to funds that currently do not and may, thus, be able to offer higher yields to investors.

Second, the final amendments may influence the competitive standing of prime money market funds relative to government money market funds. The elimination of redemption gates and removal of the link between weekly liquid assets and liquidity fees may reduce the risk of runs on prime money market funds and may protect the value of investments of non-transacting shareholders. However, the final amendment's liquidity fee framework may increase the variability of prime money market funds returns, while higher liquidity requirements may reduce the yields they are able to offer to investors. This may reduce their attractiveness to investors and may result in a greater reallocation of capital from prime to government funds, bank deposit accounts, and other types of liquid vehicles.

Third, due to economies of scale, costs of the final amendments may be more easily borne by larger money market fund families and their service providers.⁸⁰⁷ To the degree that such costs may be significant for some money market fund families, this may contribute to consolidation in the money market fund industry and reduce the number of intermediaries offering non-government money market funds to investors. Some or all of the costs of the final amendments may also be passed along to fund investors in the form of higher expense ratios or reduced availability of certain fund offerings. However, as discussed throughout this release, the final amendments have been tailored to reduce compliance costs, while preserving the benefits to investors, funds, and securities markets, which may partly mitigate these effects.

The final amendment's increases to the minimum liquidity thresholds may reduce access to and increase costs of raising capital for some issuers of short-term debt, thereby potentially negatively affecting capital formation. Moreover, to the degree that raising liquidity thresholds may reduce money market fund yields and to the extent that liquidity fees may increase uncertainty about investors' redemption costs, the final amendments may reduce the viability of prime money market funds as an asset class. This reallocation may be efficient to the extent that government money market funds or banking products, if insured and if such insurance is correctly priced, may be more suitable for cash management by liquidity risk averse investors. Moreover, banking entities insured by the Federal Deposit Insurance Corporation (FDIC) pay deposit insurance assessments, whereas money market funds do not internalize any portion of government interventions or externalities they impose on other investors in the same asset classes.⁸⁰⁸

⁸⁰⁷ See, e.g., Federated Hermes Comment Letter I.

⁸⁰⁸ If some of the funds flow out of the money market fund sector and into the banking sector, and if potential future stresses in the banking sector require government intervention, this could, under some circumstances, increase the magnitude of such intervention. See, e.g., Federated Hermes Comment Letter I. However, flows between the banking and money market fund sectors may be highly sensitive to, among others, the spread between money market fund and bank rates. In addition, during the recent stresses in the banking sector in 2023, funds flowed out of certain banks and into certain money market funds, pointing to a trend to diversify portfolios across asset classes, as discussed in further detail in section IV.B.1.b.

Nevertheless, potential decreases in the size of the prime money market fund sector may have adverse follow-on effects on capital formation and the availability of wholesale funding liquidity to issuers and institutions seeking to arbitrage mispricings across markets. Issuers may respond to such changes by shifting their commercial paper and certificate of deposit issuance toward longer maturity instruments, which may reduce their exposure to rollover risk.

These aspects of the final amendments may be borne disproportionately by global or foreign banking organizations that rely on money market funds for dollar funding. Specifically, some research has explored the effects of outflows from prime money market funds into government money market funds around the 2014 money market fund reforms on business models and lending activities of foreign banking organizations in the U.S. To the degree that the final amendments would result in further outflows from prime money market funds, banking organizations reliant on unsecured funding from money market funds may reduce arbitrage positions and investments in illiquid assets, rather than reducing lending.⁸⁰⁹ However, reduced wholesale dollar funding from money market funds may also lead to a reduction in capital formation through dollar lending by affected banks, which may reduce the dollar borrowing ability of firms reliant on affected banks.⁸¹⁰

The final amendments related to the methods of calculation of weighted average maturity and weighted average life may increase consistency and comparability of disclosures by money market funds in data reported to the Commission and provided on fund websites. These amendments, therefore, may reduce informational asymmetries between funds and fund investors about interest rate and liquidity risk exposures across fund portfolios. To the degree that consistency and comparability of WAM and WAL information may inform investors and may

⁸⁰⁹ See, e.g., Alyssa Anderson et al., *Arbitrage Capital of Global Banks* (Finance and Economics Discussion Series 2021-032. Washington: Board of Governors of the Federal Reserve System, May 2021), available at <https://doi.org/10.17016/FEDS.2021.032>. See also Thomas Flanagan, *Funding Stability and Bank Liquidity* (Working Paper, Mar. 2020), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3555346 (retrieved from SSRN Elsevier database).

⁸¹⁰ See, e.g., Victoria Ivashina, et al., *Dollar Funding and the Lending Behavior of Global Banks*, 130 Q.J. Econ. 1241, 1241-1281 (2015).

influence their capital allocation decisions, the final amendments may improve allocative efficiency. The final amendments related to the calculation of WAM and WAL are not expected to affect competition and capital formation.

The final amendments related to Form PF reporting requirements for large liquidity fund advisers may enhance the Commission's and FSOC's oversight, which may promote better functioning and more stable short-term funding markets and may, thus, lead to increases in efficiency of such markets and may facilitate capital formation in large liquidity funds. The additional, more granular, and timely data collected on the amended Form PF about large liquidity fund advisers may help reduce uncertainty about risks in the U.S. financial system and inform and frame regulatory responses to future market events and policymaking. It may also help develop regulatory tools and mechanisms that could potentially be used to make future systemic crisis episodes less likely to occur and less costly and damaging when they do occur. In addition, these amendments may improve the efficiency and effectiveness of the Commission's and FSOC's oversight of large liquidity fund advisers by enabling them to manage and analyze information related to the risks posed by large liquidity funds more quickly, more efficiently, and more consistently. Form PF amendments for large liquidity fund advisers are not expected to have significant effects on competition.

V. PAPERWORK REDUCTION ACT

A. Introduction

Certain provisions of the final amendments to rule 2a-7 and Forms N-1A, N-CR, N-MFP, and PF contain "collection of information" requirements within the meaning of the PRA.⁸¹¹ The Commission published a request for comment on changes to these collection of information requirements in the Proposing Release and the Form PF Proposing Release and submitted these requirements to the Office of Management and Budget ("OMB") for review in accordance with

⁸¹¹ 44 U.S.C. 3501 through 3521.

the PRA.⁸¹² The titles for the existing collections of information are: (1) “Rule 2a-7 under the Investment Company Act of 1940, Money market funds” (OMB Control No. 3235-0268); (2) “Form N-1A under the Securities Act of 1933 and under the Investment Company Act of 1940, registration statement of open-end management investment companies” (OMB Control No. 3235-0307); (3) “Rule 30b1-8 under the Investment Company Act of 1940, Current report for money market funds and Form N-CR, Current report, money market fund material events” (OMB Control No. 3235-0705); (4) “Rule 30b1-7 under the Investment Company Act of 1940, Monthly report for money market funds and Form N-MFP, Monthly schedule of portfolio holdings of money market funds” (OMB Control No. 3235-0657); (5) “Form PF and Rule 204(b)-1” (OMB Control Number 3235-0679); and (6) “Rule 31a-2: Records to be preserved by registered investment companies, certain majority-owned subsidiaries thereof, and other persons having transactions with registered investment companies” (OMB Control No. 3235-0179).⁸¹³ An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

B. Rule 2a-7

The final amendments to rule 2a-7 create new collection of information requirements and modify or remove existing requirements. These final amendments include: (1) removing the provisions that link liquidity thresholds and board determinations regarding potential imposition of redemption gates and liquidity fees, and related changes to website disclosure requirements; (2) new provisions that require institutional prime and institutional tax-exempt money market funds to adopt a liquidity fee framework and allow non-government money market funds to apply discretionary liquidity fees, and the associated board review, approved guidelines, and ongoing oversight; (3) new provisions requiring a money market fund to identify in its written

⁸¹² 44 U.S.C. 3507(d); 5 CFR 1320.11.

⁸¹³ For the Commission’s notice requesting comment on changes to the collection of information requirements in Form PF, *see* Form PF Proposing Release, *supra* note 14.

stress testing procedures the minimum liquidity levels for stress testing; and (4) new provisions that permit a stable NAV fund to engage in share cancellation in a negative interest rate environment and the associated board determination and investor disclosure requirements.

The respondents to these collections of information will be money market funds. We estimate that there are 294 money market funds subject to rule 2a-7, although the new collections of information would each apply to certain subsets of money market funds, as reflected in the below table.⁸¹⁴ The new collections of information are mandatory for the identified types of money market funds that rely on rule 2a-7, except that the collection related to use of share cancellation will be necessary only for those funds seeking to use share cancellation instead of converting to a floating NAV. The final amendments are designed to enable Commission staff in its examinations of money market funds to determine compliance with the rule. To the extent the Commission receives confidential information pursuant to the collections of information, such information will be kept confidential, subject to the provisions of applicable law.⁸¹⁵

In our most recent PRA submission for rule 2a-7, we estimated the annual aggregate compliance burden to comply with the collection of information requirement of rule 2a-7 is 293,516 burden hours with an internal cost burden of \$73,612,364 and an external cost burden estimate of \$52,300,000.⁸¹⁶

While the Commission did not receive any comments specifically addressing the estimated PRA burdens in the Proposing Release associated with the amendments to rule 2a-7, it

⁸¹⁴ Based on Form N-MFP filings, there were 294 money market funds as of Mar. 2023.

⁸¹⁵ *See, e.g.*, 5 U.S.C. 552. Exemption 4 of the Freedom of Information Act provides an exemption for trade secrets and commercial or financial information obtained from a person and privileged or confidential. Exemption 8 of the Freedom of Information Act provides an exemption for matters that are contained in or related to examination, operating, or condition reports prepared by, or on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions.

⁸¹⁶ The most recent rule 2a-7 PRA submission was approved in 2022 (OMB Control No. 3235-0268). This includes a correction of a typographical error regarding the currently approved external cost estimate, which is reflected as \$73,612,364 but should have been \$52,300,000 as shown in the supporting statement. The estimates in the Proposing Release were based on earlier approved estimates (337,328 hours and \$38,100,454 external cost burden), and these earlier approved estimates are reflected in the “Proposed Estimates” section of Table 15.

did receive comments suggesting that implementation of some of the elements of the proposed amendments, including the associated collections of information, may be more burdensome than the Commission estimated at proposal.⁸¹⁷ However, several of the revisions made to the final amendments help alleviate many of the burdens commenters discussed in relation to the proposal, including for instance, burdens related to the proposed swing pricing requirements. We have adjusted the proposal's estimated annual burden hours and total time costs to reflect changes from the proposal, changes in the number of money market funds, and updated wage rates.

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the amendments to rule 2a-7.

Table 15: Burden Estimates for Rule 2a-7

	Internal initial burden hours	Internal annual burden hours ¹		Wage rate ²	Internal time costs	Annual external cost burden
PROPOSED ESTIMATES³						
Removal of fee and gate provisions	0 hours	-7 hours	×	\$1,562	-\$10,935	
Number of funds		×	2		×	2
Total annual burden for removal of fee and gate provisions (I)		-14 hours			-\$21,870	
Swing pricing policies and procedures	54 hours	20 hours	×	\$382	\$7,640	
		2 hours		\$4,470	\$8,940	
Swing pricing board reporting		4 hours	×	\$2,419	\$9,676	
Swing pricing recordkeeping		4 hours	×	\$113	\$452	
Number of fund complexes		×	25		×	25
Total annual burden for swing pricing requirement (II)		750 hours			\$667,700	
Recordkeeping related to financial intermediary determinations	3 hours	2 hours		\$110	\$220	
Number of funds		×	265		×	265
Total annual burden for determinations related to financial intermediaries (III)		530 hours			\$58,300	
Total new annual burden (I + II + III)		1,266 hours			\$704,130	
Current burden estimates		337,328 hours			\$92,875,630	\$38,100,454
Revised burden estimates		338,594 hours			\$93,579,760	\$38,100,454
FINAL ESTIMATES						
Removal of tie between liquidity threshold and fees and gates and	0 hours	-7 hours	×	\$1,713 ⁴	-\$11,991	

⁸¹⁷

See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; Western Asset Comment Letter.

associated board determinations

Number of funds ⁵		× 2		× 2	
Total annual burden for removal of tie between liquidity threshold and fees and gates and associated board determinations (I)		-14 hours		-\$23,982	
Guidelines and board review for mandatory and discretionary liquidity fees	12 hours ⁶	3 hours	x	\$368 ⁷	\$1,104
		2 hours ⁸		\$4,770 ⁹	\$9,540
		1 hour ¹⁰		\$425 ¹¹	\$425
Number of funds ¹²		× 111		× 111	
Total annual burden for liquidity fee requirements (II)		666 hours		\$1,228,659	
Identification of minimum liquidity levels for stress testing policies	1 hour ¹³	0.3 hour		\$428 ¹⁴	\$128
Number of funds		× 294		× 294	
Total annual burden for amending stress testing policies (III)		88 hours		\$37,632	
Determination and disclosures regarding share cancellation	6 hours ¹⁵	2 hours ¹⁶		\$484 ¹⁷	\$968
		1 hour		\$4,770 ⁹	\$4,770
Number of funds ¹⁸		× 169		× 169	
Total annual burden for determinations related to share cancellation (IV)		507 hours		\$969,722	
Changes to website disclosure related to fees and gates		-1 hour		-\$254 ¹⁹	
Number of funds ²⁰		× 1		× 1	
Other changes to website disclosure	1 hour	0.3 hour		\$289 ²¹	\$87
Number of funds		× 294		× 294	
Total annual burden for website disclosure amendments (V)		87 hours		\$25,324	
Total new annual burden (I+II+III+IV+V)		1,334 hours		\$2,237,355	
Current burden estimates		293,516 hours		\$73,612,364	\$52,300,000 ²²
Revised burden estimates		294,850 hours		\$75,849,719	\$52,300,000

Notes:

1. This estimate includes the initial burden estimates amortized over a three-year period.
2. The Commission's estimates of the relevant wage rates (with the exception of the board of directors) are based on salary information for the securities industry compiled by the Securities Industry and Financial Markets Association's Office Salaries in the Securities Industry 2013. The estimated wage figures are modified by Commission staff to account for an 1,800-hour work-year and multiplied by 5.35 to account for bonuses, firm size, employee benefits, overhead, and adjusted to account for the effects of inflation. These PRA estimates assume that the same types of professionals would be involved in the new requirements that we believe otherwise would be involved in complying with other information collection requirements in rule 2a-7.
3. For additional detail about the proposed estimates, see Proposing Release, *supra* note 5, at section IV.B.
4. Represents the wage rate and burden hour allocations the Commission used in its most recent PRA submission. In that submission, the Commission estimated 5 hours for an attorney (at a rate of \$484 per hour) and 2 hours for a board of 9 directors (at a rate of \$4,770 per hour).
5. In its most recent PRA submission, the Commission estimated that 2 funds per year would have weekly liquid assets below 30% of total assets, which would require a board determination of whether to impose fees or gates. Because our amendments would remove the gate provisions from the rule and would amend the liquidity fee provision's information collection requirements as otherwise reflected in this PRA, we are removing the burdens that have been allocated to these provisions of the current rule.
6. We are estimating for the purpose of this analysis that each fund would incur a one-time average burden of 9 hours to prepare liquidity fee guidelines in conformance with the final rule's liquidity fee provisions, with 4.5 hours spent by a senior accountant and 4.5 hours spent by a chief compliance officer. Since a fund board reviews and approves the liquidity fee written guidelines for determining the application and size of liquidity fees, we estimate a one-time burden of 3 hours per fund associated with the fund board's review and administration/delegation of the liquidity fee framework. We assume for these purposes that all affected fund boards will delegate responsibilities for day-to-day administration of mandatory liquidity fees to the fund's adviser or officers. The estimates reflect the average burden per fund, although on a per-fund basis burdens for institutional funds will likely be higher than burdens for non-institutional funds, given that institutional funds are subject to the mandatory liquidity fee provision as well as the discretionary fee provision.

7. Represents a blended wage rate of a senior accountant (\$252 per hour) and an attorney (\$484 per hour).
8. Reflects a one-time burden of 3 hours of board time, annualized over 3 years, plus an ongoing burden of 1 hour of board time per year to review liquidity fee guidelines and the delegate's liquidity fee determinations.
9. Represents an estimated cost per hour for an entire board of directors, assuming an average of 9 board members per board.
10. We estimate that each fund will spend 1 hour of compliance and professional legal time each year, on average, to review and amend its liquidity fee guidelines.
11. Represents an estimated cost per hour for a compliance attorney.
12. Includes prime and tax-exempt money market funds as of Mar. 2023. We assume for purposes of this analysis that no government money market funds will opt in to the discretionary liquidity fee framework. Although the estimates reflect a per-fund average, we believe that funds within the same fund complex would experience certain efficiencies in responding to the collection of information requirements. Depending on the size of the fund complex, per fund costs may be higher or lower than our estimated averages.
13. We estimate an initial burden of 1 hour per fund for determining and recording the minimum liquidity levels for fund stress testing policies.
14. Represents a blended wage rate of a senior portfolio manager (\$383 per hour), a senior risk management specialist (\$416 per hour), and an attorney (\$484 per hour).
15. We estimate an initial burden of 6 hours per fund for determining whether the fund will use share cancellation in the event of negative fund yields, with 3 hours of board time and 3 hours of attorney time to prepare materials for board review and to prepare written records of board determinations.
16. We estimate that each fund will spend 1 hour of attorney time each year, on average, to update disclosures regarding the potential use of share cancellation in the event of negative fund yields.
17. Represents an estimated cost per hour for an attorney.
18. We estimate that not all stable NAV money market funds would seek to use share cancellation in the event of negative interest rates and, for purposes of this analysis, we assume that 70% of stable NAV money market funds would pursue such an approach. 169 funds represents 70% of the number of government and retail money market funds as of Mar. 2023, based on Form N-MFP data.
19. Represents the wage rate and burden hour allocations the Commission used in its most recent PRA submission. In that submission, the Commission estimated 1 hour for a webmaster (at a rate of \$254 per hour) for 1 fund per year.
20. In its most recent PRA submission, the Commission estimated that 1 fund per year would be required to update its website to disclose information about the imposition and removal of liquidity fees and the suspension and resumption of fund redemptions. Because our amendments would remove the gate provisions from the rule and would no longer require website disclosures about the imposition of liquidity fees, we are similarly removing the burdens that have been allocated to these provisions.
21. Represents an estimated cost per hour for a webmaster.
22. This reflects a correction of a typographical error regarding the currently approved external cost estimate.

C. Form N-MFP

The final amendments to Form N-MFP include additional data collection and certain technical improvements that will assist our monitoring and analysis of money market funds. We are adopting amendments to: (1) increase the frequency of certain data points from weekly to daily; (2) collect new information about securities that have been disposed of before maturity; (3) collect new information about the composition and concentration of money market funds' shareholders; (4) collect new information about the use of liquidity fees and share cancellation; and (5) collect additional information about repurchase agreement transactions, as well as certain other information about the fund's portfolio securities. We are also adopting amendments to improve identifying information about the fund, including changes to better identify different categories of government money market funds, changes to identify privately offered funds that are used for internal cash management purposes, and amendments to provide the name and other

identifying information for the registrant, series, and class. The final amendments to Form N-MFP also include several changes to clarify current instructions or items. In a change from the proposal, we are not adopting amendments to require funds to report lot-level information about portfolio securities (*e.g.*, the acquisition date for each security) or report disaggregated information about securities subject to repurchase agreements in all circumstances, among other changes.

The information collection requirements on Form N-MFP are designed to improve the availability of information about money market funds and assist the Commission in analyzing the portfolio holdings of money market funds, and thereby augment our understanding of the risk characteristics of individual money market funds and money market funds as a group, as well as industry trends. The final amendments enhance our oversight of money market funds and our ability to monitor and respond to market events. Preparing a report on Form N-MFP is mandatory for money market funds, and responses to the information collections will not be kept confidential.

The respondents to these collections of information will be money market funds. The Commission estimates there are 294 money market funds that report information on Form N-MFP although certain components of the proposed new collections of information would apply to certain subsets of money market funds, as reflected in the below table. We estimate that 35% of money market funds (or 103 money market funds) license a software solution and file reports on Form N-MFP in house. We estimate that the remaining 65% of money market funds (or 191 money market funds) retain the services of a third party to provide data aggregation and validation services as part of the preparation and filing of reports on Form N-MFP on the fund's behalf. We understand that the required data in the final amendments to Form N-MFP generally are already maintained by money market funds pursuant to other regulatory requirements or in the ordinary course of business. Accordingly, for the purposes of our analysis, we do not believe that the final amendments add significant burden hours for filers of Form N-MFP.

In our most recent PRA submission for Form N-MFP, we estimated the annual aggregate compliance burden to comply with the collection of information requirement of Form N-MFP is 44,263 burden hours with an internal cost burden of \$14,385,475 and an external cost burden estimate of \$2,613,300.⁸¹⁸

In the Proposing Release, we estimated that the proposed amendments would require a money market fund to spend up to an additional 9 burden hours complying with the proposed amendments.⁸¹⁹ The Commission did not receive public comment regarding the PRA estimates for Form N-MFP in the Proposing Release. We did, however, receive comments suggesting that lot-level reporting and reporting disaggregated information about securities subject to repurchase agreements when the securities are issued by the same issuer would be burdensome.⁸²⁰ After considering comments, we are not adopting those proposed requirements. We are revising our PRA estimates for the final amendments to reflect the changes from the proposed amendments, and updated data and wage rates.

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the amendments to Form N-MFP.

Table 16: Burden Estimate for Form N-MFP

	Internal initial burden hours	Internal annual burden hours ²		Wage rate ³	Internal time costs	Annual external cost burden
PROPOSED ESTIMATES¹						
Reporting on disposed securities	3 hours	2 hours	×	\$304	\$608	
Number of funds for disposed securities information		×	64		×	64
Total new annual burden for disposed securities information (I)		128 hours			\$38,912	
Other proposed amendments	9 hours	7 hours		\$304	\$2,128	\$912
Number of funds		×	318		×	318

⁸¹⁸ This estimate is based on the last time the PRA submission for the rule's information collection was approved in 2022 (OMB Control No. 3235-0657). The estimates in the Proposing Release were based on earlier approved estimates (64,667 hours and \$3,179,700 external cost burden), and these earlier approved estimates are reflected in the "Proposed Estimates" section of Table 16.

⁸¹⁹ As reflected in Table 16, certain components of the proposed amendments would apply to certain subsets of money market funds and therefore, the estimated additional annual hour burdens of the full scope of the proposed new collections of information would apply to the subject fund.

⁸²⁰ See, e.g., ICI Comment Letter; SIFMA AMG Comment Letter; BlackRock Comment Letter; CCMR Comment Letter; Federated Hermes Comment Letter I.

Total new annual burden for Other proposed amendments (II)	2,226 hours			\$676,704	\$290,016
Total new annual burden (I +II)	2,354 hours			\$715,616	\$290,016
Current burden estimates	64,667 hours			\$6,754,832	\$3,179,700
Revised burden estimates	67,021 hours			\$7,470,448	\$3,469,716
FINAL ESTIMATES					
Reporting on disposed securities	3 hours	2 hours ⁴	×	\$346 ⁵	\$692
Number of funds for disposed securities information ⁶	× 60			× 60	
Total new annual burden for disposed securities information (I)	120 hours			\$41,520	
Other proposed amendments	7.5 hours	5.5 hours ⁷		\$346 ⁵	\$1,903
Number of funds ⁸	× 294			×	294
Total new annual burden for Other proposed amendments (II)	1,617 hours			\$559,482	\$268,128 ⁹
Total new annual burden (I +II)	1,737 hours			\$601,002	\$268,128
Current burden estimates	44,263 hours			\$6,319,950	\$2,613,300
Revised burden estimates	46,000 hours			\$6,920,952	\$2,881,428

Notes:

1. For additional detail about the proposed estimates, see Proposing Release, *supra* note 5, at section IV.B.
2. This estimate includes the initial burden estimates amortized over a three-year period.
3. See *supra* Table 15, at note 2. These PRA estimates assume that the same types of professionals would be involved in the new reporting requirements that we believe otherwise would be involved in preparing and filing reports on Form N-MFP.
4. This estimate assumes that, after the initial 3 hours that a fund would spend complying with the requirement to report on disposed securities, which we annualized over a 3-year period, the fund would incur 1 additional burden hour associated with ongoing compliance with this reporting requirement.
5. This represents a blended hourly rate of \$347 for a Financial Reporting Manager (\$339 per hour), Fund Senior Accountant (\$252 per hour), Senior Database Administrator (\$397 per hour), Senior Portfolio Manager (\$383 per hour), and Compliance Manager (\$360 per hour)). The blended hourly rate was calculated as $(\$339 + \$252 + \$397 + \$383 + \$360) / 5 = \346 rounded to the nearest whole dollar.
6. This reflects that our final amendments require that only prime money market funds report information about disposed securities on Form N-MFP. We estimate that there were 60 prime funds as of Mar. 2023, based on Form N-MFP filings.
7. This estimate assumes that, after the initial 7.5 hours that a fund would spend complying with the other amendments to Form N-MFP, which we annualized over a 3-year period, the fund would incur 3 additional burden hours associated with ongoing compliance with the reporting requirements.
8. We estimate that there were 294 money market funds as of Mar. 2023, based on Form N-MFP filings.
9. This estimate is based on the following information and calculations: $(35\% \times \$4,805 \text{ (the average cost to license a third-party software solution per year)}) + (65\% \times \$11,440 \text{ (the average cost of retaining the services of a third-party vendor to prepare and file reports on Form N-MFP on the fund's behalf)}) = \$7,436$ = basis for existing external N-MFP filing costs. We estimate that the new Form N-MFP requirements will add an additional 10% costs (e.g., $(\$1,681.75 + \$7,436 = \$9,117.75) \times 10\% = \912 per fund). $\$912 \times 294 = \$268,128$.

D. Form N-CR

The amendments to Form N-CR will require a fund to file a report publicly when its investments are more than 50% below the minimum weekly liquid asset or daily liquid asset requirements. The amendments also remove the reporting events that relate to liquidity fees and redemption gates, as money market funds will no longer be permitted to impose redemption gates under rule 2a-7, and we believe other disclosure about the imposition of liquidity fees is more appropriate than Form N-CR disclosure under the final rule's amended liquidity fee

framework. In addition, the final amendments will require money market funds to file Form N-CR reports in a custom XML data language. The information collection requirements are designed to assist Commission staff in its oversight of money market funds and its ability to respond to market events. We estimate that there are 294 money market funds subject to Form N-CR reporting requirements, but a fund is required to file a report on Form N-CR only when a reportable event occurs.⁸²¹ Compliance with the disclosure requirements of Form N-CR is mandatory for money market funds, and the responses to the disclosure requirements will not be kept confidential.

In our most recent PRA submission for Form N-CR, we estimated that we would receive, in the aggregate, an average of 6 reports filed on Form N-CR per year. We also estimated the annual aggregate compliance burden to comply with the collection of information requirement of Form N-CR is 51 burden hours with an internal cost burden of \$19,839, and an external cost burden estimate of \$6,111.⁸²²

The Commission did not receive public comment regarding the PRA estimates for Form N-CR in the Proposing Release. We have adjusted the proposal's estimated annual burden hours and total time costs, however, to reflect updated data and wage rates.

Our most recent PRA submission for Form N-CR based the burden estimates on the number of Form N-CR reports filed between 2018 and 2020, and no funds filed reports related to liquidity fees or suspensions of redemptions during that period (or at any other time). As a result, we do not believe that removing the items from Form N-CR related to liquidity fees and suspensions of redemptions would affect the current burden estimates.

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the amendments to Form N-CR.

Table 17: Burden Estimates for Form N-CR

⁸²¹ Based on Form N-MFP filings, there were 294 money market funds as of Mar. 2023.

⁸²² The most recent Form N-CR PRA submission was approved in 2021 (OMB Control No. 3235-0705).

	Internal initial burden hours	Internal annual burden hours		Wage rate ¹	Internal time costs	Annual external cost burden
PROPOSED ESTIMATES ²						
Reporting of liquidity threshold events	0 hours	4.5 hours	×	\$492 (legal professional)	\$2,214	
	0 hours	4 hours	×	\$285 (financial professional)	\$1,140	
Total annual burden per response		8.5 hours³			\$3,354	
Number of responses		×	1		×	1
Estimated burden for reporting of liquidity threshold events (I)		8.5 hours			\$3,354	
Submission in a structured data language	0 hours	2 hours	×	\$277 (programmer)	\$554	
Number of responses		×	7 ⁴		×	7 ⁴
Estimated burden for submission in a structured data format (II)		14 hours			\$3,878	
Total estimated burden (I+II)		22.5			\$7,232	
Current Burden Estimates		51			\$19,839	\$6,111
Revised Burden Estimates		73.5			\$27,071	\$6,111
FINAL ESTIMATES						
Reporting of liquidity threshold events	0 hours	4.5 hours	×	\$560 (legal professional)	\$2,520	
	0 hours	4 hours	×	\$325 (financial professional)	\$1,300	
Total annual burden per response		8.5 hours³			\$3,820	\$1,187⁵
Number of responses		×	1		×	1
Estimated burden for reporting of liquidity threshold events (I)		8.5 hours			\$3,820	\$1,187
Submission in a structured data language	0 hours	2 hours	×	\$316 (programmer)	\$632	
Number of responses		×	7 ⁴		×	7 ⁴
Estimated burden for submission in a structured data format (II)		14 hours			\$4,424	
Total estimated burden (I+II)		22.5			\$8,244	\$1,187
Current Burden Estimates		51			\$19,839	\$6,111
Revised Burden Estimates		73.5			\$28,083	\$7,298

Notes:

1. See *supra* Table 15, at note 2. These PRA estimates assume that the same types of professionals would be involved in the proposed and final reporting requirements that we believe otherwise would be involved in preparing and filing reports on Form N-CR. Based on inflation adjustments for 2023 in the wage rates for the final estimates, the financial professional category is the blended average hourly rate for a senior portfolio manager (\$383), financial reporting manager (\$339), and senior accountant (\$252). The legal professional category is a blended average hourly rate for a deputy general counsel (\$695) and compliance attorney (\$425).

2. For additional detail about the proposed estimates, see Proposing Release, *supra* note 5, at section IV.E.

3. This estimated burden also includes notifying the board of liquidity threshold events, which will involve providing the same information within the same period as the Form N-CR report.

4. This estimate includes 6 reports filed per year in addition to the 1 estimated annual response resulting from the reporting of liquidity threshold events.

5. This estimate of additional external cost burden is based on the following calculation: 2.1 hours × \$565 per hour for outside legal counsel = \$1,187 per report. This estimate of the additional external cost burden associated with the new Form N-CR reporting item uses the same methodology of estimating additional external cost burden as the currently approved burden estimate.

E. Form N-1A

The final amendments to Form N-1A modify the narrative risk disclosure that money market funds must provide in their summary prospectuses. The modifications affect all types of money market funds and include changes pertaining to liquidity fees and suspensions of redemptions that are more likely to affect prime and tax-exempt money market funds. Further, the amendments streamline the information a fund will be required to disclose in its SAI about any liquidity fees imposed during the prior 10 years and removes SAI disclosure related to the suspension of redemptions. We estimate that streamlining the required SAI disclosure will not affect the current estimated burdens of Form N-1A because while we are reducing the amount of information a fund must report when it has imposed a liquidity fee, the mandatory liquidity fee requirement in the final rule will likely result in institutional funds imposing liquidity fees more frequently than under the current rule. Compliance with the disclosure requirements of Form N-1A is mandatory for money market funds, and the responses to the disclosure requirements will not be kept confidential.

The purpose of the information collection requirements on Form N-1A is to meet the filing and disclosure requirements of the Securities Act and the Investment Company Act and to enable funds to provide investors with information necessary to evaluate an investment in the fund. The final amendments to Form N-1A are designed to provide investors with information about a fund's use of liquidity fees, which investors can use to inform their investment decisions.

The respondents to these collections of information will be money market funds. The Commission estimates there are 294 money market funds that are subject to Form N-1A, although aspects of the new collections of information related to liquidity fees and the removal of temporary suspensions of redemptions generally will only apply to prime and tax-exempt money market funds. The Commission estimates there are 111 prime and tax-exempt money market funds.

In our most recent PRA submission for Form N-1A, we estimated the annual aggregate burden to comply with the collection of information requirement of Form N-1A is 1,672,077 burden hours with an internal cost burden of \$474,392,078, and an external cost burden estimate of \$132,940,008.⁸²³

The Commission did not receive public comment regarding the PRA estimates for Form N-1A in the Proposing Release. We have adjusted the proposal's estimated annual burden hours and internal time costs, however, to reflect changes in the final rule (*e.g.*, the removal of the proposed swing pricing requirement, which means affected money market funds will not be required to provide swing pricing disclosure) and updated wage rates and data.

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the amendments to Form N-1A.

Table 18: Burden Estimates for Form N-1A

	Internal initial burden hours	Internal annual burden hours ¹	Wage rate ²	Internal time costs
PROPOSED ESTIMATES³				
Swing pricing-related disclosure	2 hours	1.67 hours	\$356	\$595
Number of funds for swing pricing-related disclosure		× 53		× 53
Estimated burden for swing pricing-related disclosure (I)		89 hours		\$31,535
Removal of liquidity fee and redemption gate-related disclosure		-0.5 hours	\$356	-\$178
Number of funds for removal of liquidity fee and redemption gate-related disclosure		× 129		× 129
Estimated annual burden reduction for removal of fee and gate-related disclosure (II)		-64.5 hours		-\$22,962
Total estimated burden (I-II)		24.5		\$8,573
Current Burden Estimates		1,672,077		\$474,392,078
Revised Burden Estimates		1,672,101.5		\$474,400,651
FINAL ESTIMATES				
Amended narrative risk disclosure	0.5 hours	0.17 hours⁴	\$406⁵	\$69
Number of funds		× 294 ⁶		× 294 ⁶
Estimated burden for amended narrative risk disclosure		50 hours		\$20,286
Total estimated burden		50		\$20,286

⁸²³ The most recent Form N-1A PRA submission was approved in 2019 (OMB Control No. 3235-0307).

Current Burden Estimates	1,672,077	\$474,392,078
Revised Burden Estimates	1,672,127	\$474,412,364

Notes:

1. This estimate includes the initial burden estimates amortized over a three-year period.
2. See *supra* Table 15, at note 2. These PRA estimates assume that the same types of professionals would be involved in the proposed disclosure requirements that we believe otherwise would be involved in preparing and filing registration statements on Form N-1A.
3. For additional detail about the proposed estimates, see Proposing Release, *supra* note 5, at section IV.F.
4. This estimate assumes that, after the initial 0.5 hours to amend the fund's narrative risk disclosure, funds would not have an ongoing burden given that the form provides the statement that funds must include.
5. This represents a blended rate for a compliance attorney (\$425) and a senior programmer (\$386).
6. The number of funds estimate is based on the number of money market funds reporting to the Commission on Form N-MFP as of Mar. 2023. The estimated burden is averaged across all money market funds, although prime and tax-exempt money market funds, and particularly institutional funds, will likely have a somewhat higher burden than government money market funds in updating their narrative risk disclosure.

F. Form PF

The final amendments to Form PF revise existing reporting requirements for large liquidity fund advisers. Large liquidity fund advisers generally include any adviser managing a liquidity fund and having at least \$1 billion in combined regulatory assets under management attributable to liquidity funds and registered money market funds as of the end of any month in the prior fiscal quarter.⁸²⁴

The final amendments are designed to provide the Commission and FSOC with a more complete picture of the short-term financing markets in which liquidity funds invest and, in turn, enhance the Commission's and FSOC's ability to assess the potential market and systemic risks presented by liquidity funds' activities and facilitate our oversight of those markets and their participants. The final amendments will update reporting requirements in section 3 of Form PF, which relates to reporting requirements for large liquidity fund advisers. Therefore, the final amendments will affect large liquidity fund advisers and the estimated collection of information burdens below are limited to this affected group of Form PF filers. The revised collection of information is mandatory for large liquidity fund advisers.

Responses to the information collection will be kept confidential to the extent permitted by law.⁸²⁵ Form PF elicits non-public information about private funds and their trading strategies, the public disclosure of which could adversely affect the funds and their investors. The SEC does not intend to make public Form PF information that is identifiable to any particular adviser or private fund, although the SEC may use Form PF information in an enforcement action and to assess potential systemic risk.⁸²⁶ SEC staff issues certain publications designed to inform the public of the private funds industry, all of which use only aggregated or masked information to avoid potentially disclosing any proprietary information.⁸²⁷ The Advisers Act precludes the SEC from being compelled to reveal Form PF information except (1) to Congress, upon an agreement of confidentiality; (2) to comply with a request for information from any other Federal department or agency or self-regulatory organization for purposes within the scope of its jurisdiction; or (3) to comply with an order of a court of the United States in an action brought by the United States or the SEC.⁸²⁸ Any department, agency, or self-regulatory organization that receives Form PF information must maintain its confidentiality consistent with the level of confidentiality established for the SEC.⁸²⁹ The Advisers Act requires the SEC to make Form PF information available to FSOC.⁸³⁰ For advisers that are also commodity pool operators or commodity trading advisers, filing Form PF through the Form PF filing system is filing with both the SEC and Commodity Futures Trading Commission (CFTC).⁸³¹ Therefore, the SEC makes Form PF information available to FSOC and the CFTC, pursuant to Advisers Act section 204(b), making the information subject to the confidentiality protections applicable to

⁸²⁵ See 5 CFR 1320.5(d)(2)(vii) and (viii).

⁸²⁶ See 15 U.S.C. 80b-10(c).

⁸²⁷ See, e.g., Private Funds Statistics, issued by staff of the SEC Division of Investment Management's Analytics Office, which we have used in this PRA as a data source, *available at* <https://www.sec.gov/divisions/investment/private-funds-statistics.shtml>.

⁸²⁸ See 15 U.S.C. 80b-4(b)(8).

⁸²⁹ See 15 U.S.C. 80b-4(b)(9).

⁸³⁰ See 15 U.S.C. 80b-4(b)(7).

⁸³¹ See 2011 Form PF Adopting Release, *supra* note 494.

information required to be filed under that section. Before sharing any Form PF information, the SEC requires that any such department, agency, or self-regulatory organization represent to the SEC that it has in place controls designed to ensure the use and handling of Form PF information in a manner consistent with the protections required by the Advisers Act. The SEC has instituted procedures to protect the confidentiality of Form PF information in a manner consistent with the protections required in the Advisers Act.⁸³²

In our most recent PRA submission for Form PF, we estimated the annual aggregate burden to comply with the collection of information requirement of Form PF is 409,768 burden hours and an external cost burden estimate of \$3,628,850.⁸³³

We did not receive public comment regarding the estimated burdens of the proposed amendments to section 3 of Form PF, which is the only section affected by the final amendments. However, in the broader context of the Commission's proposed amendments to Form PF, we received general comments indicating that we underestimated the burdens to implement the proposed amendments to the form.⁸³⁴ We are not adjusting our estimates in response to these comments because it is unclear that these commenters were referring to the proposed amendments to section 3 and, moreover, we are not adopting certain proposed reporting requirements, such as required lot-level reporting and disaggregated reporting for securities subject to repurchase agreements in all circumstances, which may reduce the burden for filers. We have adjusted the proposal's estimated annual burden hours and total time costs to reflect updated wage rates and data.

⁸³² See 5 CFR 1320.5(d)(2)(viii).

⁸³³ The most recent Form PF PRA submission was approved in 2021 (OMB Control No. 3235-0679).

⁸³⁴ See, e.g., Alternative Investment Management Association Limited and the Alternative Credit Council Comment Letter (Mar. 21, 2022) on File No. S7-0122; Investment Adviser Association Comment Letter (Mar. 21, 2022) on File No. S7-01-22; Form PF Proposing Release, *supra* note 14. The comment letters on Form PF Proposing Release (File No. S7-01-22) are available at: <https://www.sec.gov/comments/s7-01-22/s70122.htm>.

The tables below summarize our PRA initial and ongoing annual burden estimates associated with the amendments to Form PF.

Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings

Respondent¹		Number of Respondents = Aggregate Number of Responses²	Hours Per Response	Hours Per Response Amortized Over 3 Years³	Aggregate Hours Amortized Over 3 Years⁴
Large Liquidity Fund Advisers	Proposed Estimate	1 response ⁵	202 hours	÷ 3 = 67 hours	67 hours
	Final Estimate	1 response ⁶	202 hours	÷ 3 = 67 hours	67 hours
	Previously Approved	2 responses	200 hours	588 hours	1,176 hours
	Change	(1) response	2 hours	(521) hours	(1,109) hours

Notes:

1. We expect that the hourly burden will be most significant for the initial report because the adviser will need to familiarize itself with the new reporting form and may need to configure its systems in order to efficiently gather the required information. In addition, we expect that some large liquidity fund advisers will find it efficient to automate some portion of the reporting process, which will increase the burden of the initial filing but reduce the burden of subsequent filings.

2. This concerns the initial filing; therefore, we estimate one response per respondent. The proposed and final changes are due to using updated data to estimate the number of advisers.

3. We amortize the initial time burden over three years because we believe that most of the burden would be incurred in the initial filing. We use a different methodology to calculate the estimate than the methodology staff used for the previously approved burdens. We believe the previously approved burdens for initial filings inflated the estimates by using a methodology that included subsequent filings for the next two years, which, for quarterly filers, included 11 subsequent filings. For the requested burden, we calculate the initial filing, as amortized over the next three years, by including only the hours related to the initial filing, not any subsequent filings. This approach is designed to more accurately estimate the initial burden, as amortized over three years. Changes are due to using the revised methodology, and changes to section 3 of Form PF.

4. (Number of responses) x (hours per response amortized over three years) = aggregate hours amortized over three years. Changes are due to (1) using updated data to estimate the number of advisers and (2) the new methodology to estimate the hours per response, amortized over three years.

5. In the case of the proposed estimates, Private Funds Statistics show 23 large liquidity fund advisers filed Form PF in the fourth quarter of 2020. Based on filing data from 2016 through 2020, an average of 1.5 percent of them did not file for the previous due date. (23 x 0.015 = 0.345 advisers, rounded up to 1 adviser.)

6. In the case of the final estimates, Private Funds Statistics show 21 large liquidity fund advisers filed Form PF in the third quarter of 2022. Based on filing data from 2017 through 2021, an average of 1.5 percent of them did not file during the prior year. (21 x 0.015 = 0.32 advisers, rounded up to 1 adviser.)

Table 20: Annual Hour Burden Proposed and Final Estimates for Ongoing Quarterly Filings

Respondent ¹		Number of Respondents ²		Number of Responses ³		Hours Per Response		Aggregate Hours
Large Liquidity Fund Advisers	Proposed Estimate	22 advisers ⁴	x	4 responses	x	71 hours	=	6,248 hours
	Final Estimate	20 advisers ⁵	x	4 responses	x	71 hours	=	5,680 hours
	Previously Approved	20 advisers	x	4 responses	x	70 hours	=	5,600 hours
	Change	0 advisers		0 responses		1 hour		80 hours

Notes:

1. We estimate that after an adviser files its initial report, it will incur significantly lower costs to file ongoing quarterly reports, because much of the work for the initial report is non-recurring and likely created system configuration and reporting efficiencies.

2. Changes to the number of respondents are due to using updated data to estimate the number of advisers.

3. Large liquidity fund advisers file quarterly.

4. In the case of the proposed estimates, Private Funds Statistics show 23 large liquidity fund advisers filed Form PF in the fourth quarter of 2020. We estimated that one of them filed an initial filing, as discussed in Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings. (23 total large liquidity fund advisers – 1 adviser who made an initial filing = 22 advisers who make ongoing filings.)

5. In the case of the final estimates, Private Funds Statistics show 21 large liquidity fund advisers filed Form PF in the third quarter of 2022. We estimated that one of them filed an initial filing, as discussed in Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings. (21 total large liquidity fund advisers – 1 adviser who made an initial filing = 20 advisers who make ongoing filings.)

Table 21: Proposed and Final Annual Monetized Time Burden of Initial Filings

Respondent ¹		Per Response ²	Per Response Amortized Over 3 years ³	Aggregate Number of Responses ⁴	Aggregate Monetized Time Burden Amortized Over 3 Years
Large Liquidity Fund Advisers	Proposed Estimate	\$64,893 ⁵	$\div 3 = \$21,631$	x 1 response	= \$21,631
	Final Estimate	\$73,391 ⁶	$\div 3 = \$24,644$	x 1 response	= \$24,644
	Previously Approved	\$63,460		x 2 responses	= \$126,920
	Change	\$9,931		(1) responses	(\$102,276)

Notes:

1. We expect that the monetized time burden will be most significant for the initial report, for the same reasons discussed in Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings. Accordingly, we anticipate that the initial report will require more attention from senior personnel, including compliance managers and senior risk management specialists, than will ongoing annual and quarterly filings. Changes are due to using (1) updated hours per response estimates, as discussed in Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings, (2) updated aggregate number of responses, as discussed in Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings, and (3) updated wage estimates. Changes to the aggregate monetized time burden, amortized over three years, also are due to amortizing the monetized time burden, which the previously approved estimates did not calculate, as discussed below.

2. For the hours per response in each calculation, *see* Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings.

3. We amortize the monetized time burden for initial filings over three years, as we do with other initial burdens in this PRA, because we believe that most of the burden would be incurred in the initial filing. The previously approved burden estimates did not calculate this.

4. *See* Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings.

5. In the case of the proposed estimates, for large liquidity fund advisers, we estimated that for the initial report, of a total estimated burden of 202 hours, approximately 60 percent would most likely be performed by compliance professionals and approximately 40 percent would most likely be performed by programmers working on system configuration and reporting automation (that is approximately 121 hours for compliance professionals and 81 hours for programmers). Of the work performed by compliance professionals, we anticipated that it would be performed equally by a compliance manager at a cost of \$316 per hour and a senior risk management specialist at a cost of \$365 per hour. Of the work performed by programmers, we anticipated that it would be performed equally by a senior programmer at a cost of \$339 per hour and a programmer analyst at a cost of \$246 per hour. $((\$316 \text{ per hour} \times 0.5) + (\$365 \text{ per hour} \times 0.5)) \times 121 \text{ hours} = \$41,200.50$. $((\$339 \text{ per hour} \times 0.5) + (\$246 \text{ per hour} \times 0.5)) \times 81 \text{ hours} = \$23,692.50$. $\$41,200.50 + \$23,692.50 = \$64,893$.

6. In the case of the final estimates, for large liquidity fund advisers, we estimate that for the initial report, of a total estimated burden of 202 hours, approximately 60 percent will most likely be performed by compliance professionals and approximately 40 percent will most likely be performed by programmers working on system configuration and reporting automation (that is approximately 121 hours for compliance professionals and 81 hours for programmers). Of the work performed by compliance professionals, we anticipate that it will be performed equally by a compliance manager at a cost of \$360 per hour and a senior risk management specialist at a cost of \$416 per hour. Of the work performed by programmers, we anticipate that it will be performed equally by a senior programmer at a cost of \$386 per hour and a programmer analyst at a cost of \$280 per hour. $((\$360 \text{ per hour} \times 0.5) + (\$416 \text{ per hour} \times 0.5)) \times 121 \text{ hours} = \$46,948$. $((\$386 \text{ per hour} \times 0.5) + (\$280 \text{ per hour} \times 0.5)) \times 81 \text{ hours} = \$26,973$. $\$46,958 + \$26,973 = \$73,931$.

Table 22: Proposed and Final Annual Monetized Time Burden of Ongoing Quarterly Filings

Respondent¹		Per Response²		Aggregate Number of Responses		Aggregate Monetized Time Burden
Large Liquidity Fund Advisers	Proposed Estimate	\$20,022 ³	x	88 responses ⁴	=	\$1,761,936
	Final Estimate	\$22,791 ⁵	X	80 responses ⁶	=	\$1,823,280
	Previously Approved	\$29,216.25	x	80 responses	=	\$2,337,300
	Change⁷	(\$6,425.25)		0 responses		(\$514,020)

Notes:

1. We expect that the monetized time burden will be less costly for ongoing quarterly reports than for initial reports, for the same reasons discussed in Table 20: Annual Hour Burden Proposed and Final Estimates for Ongoing Quarterly Filings. Accordingly, we anticipate that senior personnel will bear less of the reporting burden than they would for the initial report. Changes are due to using (1) updated wage estimates, (2) updated hours per response estimates, as discussed in Table 20: Annual Hour Burden Proposed and Final Estimates for Quarterly Filings, and (2) updated aggregate number of responses. Changes to estimates concerning large liquidity fund advisers primarily appear to be due to correcting a calculation error, as discussed below.

2. For the proposed estimates, we estimated that quarterly reports would be completed equally by (1) a compliance manager at a cost of \$316 per hour, (2) a senior compliance examiner at a cost of \$243, (3) a senior risk management specialist at a cost of \$365 per hour, and (4) a risk management specialist at a cost of \$203 an hour. $(\$316 \times 0.25 = \$79) + (\$243 \times 0.25 = \$60.75) + (\$365 \times 0.25 = \$91.25) + (\$203 \times 0.25 = \$50.75) = \$281.75$, rounded to \$282 per hour. For the final estimates, we estimate that quarterly reports would be completed equally by (1) a compliance manager at a cost of \$360 per hour, (2) a senior compliance examiner at a cost of \$276, (3) a senior risk management specialist at a cost of \$416 per hour, and (4) a risk management specialist at a cost of \$232 an hour. $(\$360 \times 0.25 = \$90) + (\$276 \times 0.25 = \$69) + (\$416 \times 0.25 = \$104) + (\$232 \times 0.25 = \$58) = \$321$. To calculate the cost per response for each respondent, we used the hours per response from Table 20: Annual Hour Burden Proposed and Final Estimates for Quarterly Filings.

3. In the case of the proposed estimates, cost per response for large liquidity fund advisers: \$282 per hour x 71 hours per response = \$20,022 per response.

4. In the case of the proposed estimates, 22 large liquidity fund advisers x 4 responses annually = 88 aggregate responses.

5. In the case of the final estimates, cost per response for large liquidity fund advisers: \$321 per hour x 71 hours per response = \$22,791 per response.

6. In the case of the final estimates, 20 large liquidity fund advisers x 4 responses annually = 80 aggregate responses.

7. The previously approved estimates appear to have mistakenly used a different amount of hours per response (105 hours), rather than the actual estimate for large liquidity fund advisers (which was 70 hours per response), causing the monetized time burden to be inflated in error. Therefore, the extent of these changes are primarily due to using the correct hours per response, which we now estimate as 71 hours, as discussed in Table 20: Annual Hour Burden Proposed and Final Estimates for Quarterly Filings. Correcting for the error in the previously approved estimates would result in a prior estimate of approximately \$19,460 per quarterly filing (\$278 per hour x 70 hours per response = \$19,460) and a change of approximately \$3,331 per quarterly filing associated with the final amendments (\$22,791 - \$19,460 = \$3,331).

Table 23: Proposed and Final Annual External Cost Burden for Ongoing Quarterly Filings as well as Initial Filings

					Aggregate External				
Respondent ¹	Number of Responses Per Respondent ²	Filing Fee Per Filing ³	Total Filing Fees	External Cost of Initial Filing ⁴	External Cost of Initial Filing Amortized Over 3 Years ⁵	Number of Initial Filings ⁶	Cost of Initial Filing Amortized Over 3 Years ⁷	Total Aggregate External Cost ⁸	
Large Liquidity Fund Advisers	Proposed Estimate	4	x \$150 = \$600	\$50,000 ÷ 3 = \$16,667	x 1	= \$16,667		\$30,467 ⁹	
	Final Estimate	4	x \$150 = \$600	\$50,000 ÷ 3 = \$16,667	x 1	= \$16,667		\$29,267 ¹⁰	
	Previously Approved	4	x \$150 = \$600	\$50,000		x 2	= \$100,000	\$113,200	
	Change	0	\$0	\$0		(1)	(\$83,333)	(\$83,933)	

Notes:

1. We estimate that advisers would incur the cost of filing fees for each filing. For initial filings, advisers may incur costs to modify existing systems or deploy new systems to support Form PF reporting, acquire or use hardware to perform computations, or otherwise process data required on Form PF.
2. Large liquidity fund advisers file quarterly.
3. The SEC established Form PF filing fees in a separate order. Since 2011, filing fees have been and continue to be \$150 per quarterly filing. *See* Order Approving Filing Fees for Exempt Reporting Advisers and Private Fund Advisers, Advisers Act Release No. 3305 (Oct. 24, 2011) [76 FR 67004 (Oct. 28, 2011)].
4. In the previous PRA submission for the rules, staff estimated that the external cost burden for initial filings would range from \$0 to \$50,000 per adviser. This range reflected the fact that the cost to any adviser may depend on how many funds or the types of funds it manages, the state of its existing systems, the complexity of its business, the frequency of Form PF filings, the deadlines for completion, and the amount of information the adviser must disclose on Form PF. We continue to estimate that the same cost range would apply.
5. We amortize the external cost burden of initial filings over three years, as we do with other initial burdens in this PRA, because we believe that most of the burden would be incurred in the initial filing. The previously approved burden estimates did not calculate this.
6. *See* Table 19: Annual Hour Burden Proposed and Final Estimates for Initial Filings.
7. Changes to the aggregate external cost of initial filings, amortized over three years are due to (1) using updated data and (2) amortizing the external cost of initial filings over three years, which the previously approved PRA did not calculate.
8. Changes to the total aggregate external cost are due to (1) using updated data and (2) amortizing the external cost of initial filings over three years, which the previously approved PRA did not calculate.
9. In the case of the proposed estimates, Private Funds Statistics show 23 large liquidity fund advisers filed Form PF in the fourth quarter of 2020. (23 large liquidity fund advisers x \$600 total filing fees) + \$16,667 total external costs of initial filings, amortized over three years = \$30,467 aggregate cost.
10. In the case of the final estimates, Private Funds Statistics show 21 large liquidity fund advisers filed Form PF in the third quarter of 2022. (21 large liquidity fund advisers x \$600 total filing fees) + \$16,667 total external costs of initial filings, amortized over three years = \$29,267 aggregate cost.

G. Rule 31a-2

Section 31(a)(1) of the Investment Company Act requires registered investment companies and certain others to maintain and preserve records as prescribed by Commission rules. Rule 31a-1 specifies the books and records that must be maintained. Rule 31a-2 specifies the time periods that entities must retain certain books and records, including those required to be maintained under rule 31a-1. The retention of records, as required by rule 31a-2, is necessary to ensure access by Commission staff to material business and financial information about funds

and certain related entities. This information will be used by the Commission staff to evaluate fund compliance with the Investment Company Act and regulations thereunder. We are adopting amendments to require money market funds to retain books and records containing schedules evidencing and supporting each computation of a liquidity fee pursuant to rule 2a-7(c)(2). The respondents to these collections of information will be money market funds. The new collections of information are mandatory for the money market funds subject to rule 2a-7(c)(2). We estimate that there are 111 money market funds that will be subject to the collection of information requirements related to liquidity fees. To the extent the Commission receives confidential information pursuant to the collections of information, such information will be kept confidential, subject to the provisions of applicable law.⁸³⁵

In our most recent Paperwork Reduction Act submission for rule 31a-2, we estimated the annual aggregate compliance burden to comply with the collection of information requirement of rule 31a-2 is 606,982 burden hours with an internal cost burden of \$52,200,418 and an external cost burden estimate of \$111,751,674.⁸³⁶

The Commission did not receive public comment regarding the PRA estimates for the proposed amendments to rule 31a-2 in the Proposing Release. We have adjusted the proposal's estimated annual burden hours and internal time costs, however, to reflect changes in the final rule (*e.g.*, providing for mandatory and discretionary liquidity fees under rule 2a-7, instead of the proposed swing pricing requirement, which applied to a smaller subset of funds) and updated wage rates and data.

The table below summarizes our PRA annual burden estimates associated with the proposed amendments to rule 31a-2.

⁸³⁵ See *supra* note 815.

⁸³⁶ The most recent rule 31a-2 PRA submission was approved in 2022 (OMB Control No. 3235-0179). The estimates in the Proposing Release were based on earlier approved estimates (696,464 hours and \$115,372,485 external cost burden), and these earlier approved estimates are reflected in the "Proposed Estimates" section of Table 24.

Table 24: Burden Estimates for Rule 31a-2

	Internal annual burden hours	Wage rate ¹		Internal time cost	Annual external cost burden
PROPOSED ESTIMATES²					
Annual burden associated with proposed swing pricing amendments for money market funds	1.5 hours	\$64 (general clerk)	x	\$96	\$600
	1.5 hours	\$97 (senior computer operator)	x	\$146	
Number of funds	x 53			x 53	x 53
Total new annual burden	159 hours			\$12,826	\$31,800
Current Burden Estimates	696,464 hours			\$56,672,424	\$115,372,485
Revised Burden Estimates	696,623			\$56,685,250	\$115,404,285
FINAL ESTIMATES					
Annual burden associated with liquidity fee recordkeeping requirement	1.5 hours	\$73 (general clerk)	x	\$110	\$600
	1.5 hours	\$111 (senior computer operator)	x	\$167	
Number of funds ³	x 111			x 111	x 111
Total new annual burden	333 hours			\$30,747	\$66,600
Current Burden Estimates	606,982 hours			\$52,200,418	\$111,751,674
Revised Burden Estimates	607,315 hours			\$52,231,165	\$111,818,274

Notes:

1. See *supra* Table 15, at note 2. These PRA estimates assume that the same types of professionals would be involved in the new recordkeeping requirements that we believe otherwise would be involved in preserving records under rule 31a-2.
2. For additional detail about the proposed estimates, see Proposing Release, *supra* note 6, at section IV.C.
3. Includes prime and tax-exempt money market funds as of Mar. 2023. We assume for purposes of this analysis that no government money market fund will opt in to the discretionary liquidity fee framework.

VI. REGULATORY FLEXIBILITY ACT CERTIFICATION

The Commission certified, pursuant to section 605(b) of the Regulatory Flexibility Act of 1980 (“RFA”)⁸³⁷ that, if adopted, the proposed amendments to rule 2a-7, rule 31a-2, Forms N-MFP and N-CR under the Investment Company Act, Form N-1A under the Investment Company Act and the Securities Act, and Form PF under the Investment Advisers Act would not have a significant economic impact on a substantial number of small entities. The Commission included these certifications in section V of the Proposing Release and section V of the Form PF

Proposing Release and requested comment on the certifications. Commenters did not respond to the requests for comment regarding the Commission’s certifications, although some commenters discussed the potential effects of the proposed amendments on smaller money market funds or smaller private funds.⁸³⁸ While we considered these comments, we continue to believe that the economic impact of the amendments on small entities will not be significant. With respect to the amendments for money market funds, only one money market fund is a small entity based on information in filings submitted to the Commission.⁸³⁹ As for the Form PF amendments affecting large liquidity fund advisers, by definition no small entity on its own would be a large liquidity fund adviser subject to reporting on Form PF.⁸⁴⁰ Large liquidity fund advisers that are required to report on Form PF are SEC-registered investment advisers that advise at least one liquidity fund and manage, collectively with their related persons, at least \$1 billion in combined liquidity fund and money market fund assets.⁸⁴¹

While the final amendments include some modifications to the Commission’s proposal, as discussed more fully above in section II, we believe these modifications generally will reduce the burdens of the proposal. Moreover, we do not believe that these modifications alter the basis upon which the certifications in the Proposing Release and the Form PF Proposing Release were made. Accordingly, we certify that the final rule will not have a significant economic impact on a substantial number of small entities.

⁸³⁸ See, e.g., Federated Hermes Comment Letter I; IDC Comment Letter; see also 2023 Form PF Adopting Release, *supra* note 494, at n.432.

⁸³⁹ Under the Investment Company Act, an investment company is considered a small business or small organization if it, together with other investment companies in the same group of related investment companies, has net assets of \$50 million or less as of the end of its most recent fiscal year. See 17 CFR 270.0-10.

⁸⁴⁰ For purposes of the Advisers Act and the RFA, an investment adviser generally is a small entity if it: (1) has assets under management having a total value of less than \$25 million; (2) did not have total assets of \$5 million or more on the last day of the most recent fiscal year; and (3) does not control, is not controlled by, and is not under common control with another investment adviser that has assets under management of \$25 million or more, or any person (other than a natural person) that had total assets of \$5 million or more on the last day of its most recent fiscal year. See 17 CFR 275.0-7.

⁸⁴¹ See Instruction 3 to Form PF.

STATUTORY AUTHORITY

The Commission is adopting the rule and form amendments contained in this document under the authority set forth in the Investment Company Act, particularly sections 6, 8, 22, 24, 30, 31, and 38 thereof [15 U.S.C. 80a-1 *et seq.*]; the Advisers Act, particularly sections 204(b) and 211(e) thereof [15 U.S.C. 80b-1 *et seq.*]; the Securities Act, particularly sections 5, 6, 7, 10, and 19 thereof [15 U.S.C. 77a *et seq.*]; and the Exchange Act, particularly section 23 thereof [15 U.S.C. 78a *et seq.*].

List of Subjects in 17 CFR Parts 270, 274, and 279

Investment companies, Reporting and recordkeeping requirements, Securities.

Text of Rule and Form Amendments

For the reasons set out in the preamble, title 17, chapter II of the Code of Federal Regulations is amended as follows:

PART 270—RULES AND REGULATIONS, INVESTMENT COMPANY ACT OF 1940

1. The general authority citation for part 270 continues to read as follows:

Authority: 15 U.S.C. 80a-1 *et seq.*, 80a-34(d), 80a-37, 80a-39, and Pub. L. 111-203, sec. 939A, 124 Stat. 1376 (2010), unless otherwise noted.

* * * * *

2. Amend § 270.2a-7 by:

a. Revising paragraph (c)(2);

b. Adding paragraph (c)(3);

c. Revising paragraphs (d)(1)(ii) and (iii) and (d)(4)(ii) and (iii);

d. Adding paragraph (f)(4);

e. In paragraphs (g)(8)(i) introductory text and (g)(8)(ii)(A), removing the words “have invested at least ten percent of its total assets in weekly liquid assets” and adding, in their place, the words “maintain the sufficient liquidity levels identified in its written procedures”; and

f. Revising paragraphs (h)(10) introductory text, (h)(10)(i)(B)(2), (h)(10)(iii), (iv), and (v), and (j).

The revisions and additions read as follows:

§ 270.2a-7 Money market funds.

* * * * *

(c) * * *

(2) *Liquidity fees.* Except as provided in paragraph (c)(2)(v) of this section, and notwithstanding section 27(i) of the Act (15 U.S.C. 80a-27(i)) and § 270.22c-1:

(i) *Discretionary liquidity fees.* If the fund's board of directors, including a majority of the directors who are not interested persons of the fund, determines that a liquidity fee is in the best interests of the fund, the fund must institute a liquidity fee (not to exceed two percent of the value of the shares redeemed).

(A) *Duration and application of discretionary liquidity fee.* Once imposed, a discretionary liquidity fee must be applied to all shares redeemed and must remain in effect until the money market fund's board of directors, including a majority of the directors who are not interested persons of the fund, determines that imposing such liquidity fee is no longer in the best interests of the fund.

(B) *Government money market funds.* The requirements of this paragraph (c)(2)(i) do not apply to a government money market fund. A government money market fund may, however, choose to rely on the ability to impose discretionary liquidity fees consistent with the requirements of this paragraph (c)(2)(i) and any other requirements that apply to liquidity fees (e.g., Item 4(b)(1)(ii) of Form N-1A (§ 274.11A of this chapter)).

(ii) *Determination, duration, and application of mandatory liquidity fees.* If a money market fund that is not a government money market fund or a retail money market fund has total daily net redemptions that exceed five percent of the fund's net assets, or such smaller amount of net redemptions as the board determines, based on flow information available within a

reasonable period after the last computation of the fund's net asset value on that day, the fund must apply a liquidity fee to all shares that are redeemed at a price computed on that day, in an amount determined pursuant to paragraph (c)(2)(iii) of this section.

(iii) *Amount of mandatory liquidity fees.* The amount of a mandatory liquidity fee must be determined pursuant to paragraph (c)(2)(iii)(A) of this section, except as provided in paragraph (c)(2)(iii)(C) or (D) of this section.

(A) *Good faith estimate of liquidity costs.* The fee amount must be based on a good faith estimate, supported by data, of the costs the fund would incur if it sold a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions, including:

(1) Spread costs, such that the fund is valuing each security at its bid price, and any other charges, fees, and taxes associated with portfolio security sales; and

(2) Market impacts for each security. The fund must determine market impacts by first establishing a market impact factor for each security, which is a good faith estimate of the percentage change in the value of the security if it were sold, per dollar of the amount of the security that would be sold if the fund sold a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions under current market conditions and, second, multiplying the market impact factor by the dollar amount of the security that would be sold. A fund may assume a market impact of zero for its daily liquid assets and weekly liquid assets.

(B) *Cost estimates by type of security.* For purposes of paragraph (c)(2)(iii)(A) of this section, a fund may estimate costs and market impacts for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type rather than analyze each security separately.

(C) *Default fee amount.* If the costs of selling a pro rata amount of each portfolio security cannot be estimated in good faith and supported by data, the liquidity fee amount is one percent of the value of shares redeemed.

(D) *De minimis exception.* A fund is not required to apply a liquidity fee if the amount of the fee determined under paragraph (c)(2)(iii)(A) of this section is less than 0.01% of the value of the shares redeemed.

(iv) *Variable contracts.* Notwithstanding section 27(i) of the Act (15 U.S.C. 80a-27(i)), a variable insurance contract issued by a registered separate account funding variable insurance contracts or the sponsoring insurance company of such separate account may apply a liquidity fee pursuant to paragraph (c)(2) of this section to contract owners who allocate all or a portion of their contract value to a subaccount of the separate account that is either a money market fund or that invests all of its assets in shares of a money market fund.

(v) *Master feeder funds.* Any money market fund (“feeder fund”) that owns, pursuant to section 12(d)(1)(E) of the Act (15 U.S.C. 80a-12(d)(1)(E)), shares of another money market fund (“master fund”) may not impose liquidity fees under paragraph (c)(2) of this section, provided however, that if a master fund, in which the feeder fund invests, imposes a liquidity fee pursuant to paragraph (c)(2) of this section, then the feeder fund shall pass through to its investors the fee on the same terms and conditions as imposed by the master fund.

(3) *Share cancellation.* A money market fund may not reduce the number of its shares outstanding to seek to maintain a stable net asset value per share or stable price per share unless:

(i) The money market fund calculates its share price pursuant to paragraph (c)(1)(i) of this section;

(ii) The fund has negative gross yield as a result of negative interest rates (“negative interest rate event”);

(iii) The board of directors determines that reducing the number of the fund’s shares outstanding is in the best interests of the fund and its shareholders; and

(iv) Timely, concise, and plain English disclosure is provided to investors about the fund’s share cancellation practices and their effects on investors, including:

(A) Advance notification to investors in the fund’s prospectus that the fund plans to use share cancellation in a negative interest rate event and the potential effects on investors; and

(B) When the fund is cancelling shares, information in each account statement or in a separate writing accompanying each account statement identifying that such practice is in use and explaining its effects on investors.

(d) * * *

(1) * * *

(ii) Maintain a dollar-weighted average portfolio maturity (“WAM”) that exceeds 60 calendar days, with the dollar-weighted average based on the percentage of each security’s market value in the portfolio; or

(iii) Maintain a dollar-weighted average portfolio maturity that exceeds 120 calendar days, determined without reference to the exceptions in paragraph (i) of this section regarding interest rate readjustments (“WAL”) and with the dollar-weighted average based on the percentage of each security’s market value in the portfolio.

* * * * *

(4) * * *

(ii) *Minimum daily liquidity requirement.* The money market fund may not acquire any security other than a daily liquid asset if, immediately after the acquisition, the fund would have invested less than twenty-five percent of its total assets in daily liquid assets. This provision does not apply to tax exempt funds.

(iii) *Minimum weekly liquidity requirement.* The money market fund may not acquire any security other than a weekly liquid asset if, immediately after the acquisition, the fund would have invested less than fifty percent of its total assets in weekly liquid assets.

* * * * *

(f) * * *

(4) *Notice to the board of directors.* (i) The money market fund must notify its board of directors within one business day following the occurrence of:

(A) The money market fund investing less than twelve and a half percent of its total assets in daily liquid assets; or

(B) The money market fund investing less than twenty-five percent of its total assets in weekly liquid assets.

(ii) Following an event described in paragraph (f)(4)(i) of this section, the money market fund must provide its board of directors with a brief description of the facts and circumstances leading to such event within four business days after occurrence of the event.

* * * * *

(h) * * *

(10) *Website disclosure of portfolio holdings and other fund information.* The money market fund must post prominently on its website the following information:

(i) * * *

(B) * * *

(2) Category of investment (indicate the category that identifies the instrument from among the following: U.S. Treasury Debt; U.S. Government Agency Debt, if categorized as coupon-paying notes; U.S. Government Agency Debt, if categorized as no-coupon discount notes; Non-U.S. Sovereign, Sub-Sovereign and Supra-National debt; Certificate of Deposit; Non-Negotiable Time Deposit; Variable Rate Demand Note; Other Municipal Security; Asset Backed Commercial Paper; Other Asset Backed Securities; U.S. Treasury Repurchase Agreement, if collateralized only by U.S. Treasuries (including Strips) and cash; U.S. Government Agency Repurchase Agreement, collateralized only by U.S. Government Agency securities, U.S. Treasuries, and cash; Other Repurchase Agreement, if any collateral falls outside Treasury, Government Agency and cash; Insurance Company Funding Agreement; Investment Company; Financial Company Commercial Paper; Non-Financial Company Commercial Paper;

and Other Instrument. If Other Instrument, include a brief description);

* * * * *

(iii) A schedule, chart, graph, or other depiction showing the money market fund's net asset value per share (which the fund must calculate based on current market factors before applying the amortized cost or penny-rounding method, if used), rounded to the fourth decimal place in the case of funds with a \$1.0000 share price or an equivalent level of accuracy for funds with a different share price (e.g., \$10.000 per share), as of the end of each business day during the preceding six months, which must be updated each business day as of the end of the preceding business day.

(iv) A link to a website of the Securities and Exchange Commission where a user may obtain the most recent 12 months of publicly available information filed by the money market fund pursuant to § 270.30b1-7.

(v) For a period of not less than one year, beginning no later than the same business day on which the money market fund files an initial report on Form N-CR (§ 274.222 of this chapter) in response to the occurrence of any event specified in Part C of Form N-CR, the same information that the money market fund is required to report to the Commission on Part C (Items C.1, C.2, C.3, C.4, C.5, C.6, and C.7) of Form N-CR concerning such event, along with the following statement: "The Fund was required to disclose additional information about this event on Form N-CR and to file this form with the Securities and Exchange Commission. Any Form N-CR filing submitted by the Fund is available on the EDGAR Database on the Securities and Exchange Commission's internet site at <https://www.sec.gov>."

* * * * *

(j) *Delegation.* The money market fund's board of directors may delegate to the fund's investment adviser or officers the responsibility to make any determination required to be made by the board of directors under this section other than the determinations required by paragraphs (c)(1) (board findings), (c)(3) (share cancellation), (f)(1) (adverse events), (g)(1) and (2)

(amortized cost and penny rounding procedures), and (g)(8) (stress testing procedures) of this section.

(1) *Written guidelines.* The board of directors must establish and periodically review written guidelines (including guidelines for determining whether securities present minimal credit risks as required in paragraphs (d)(2) and (g)(3) of this section and guidelines for determining the application and size of liquidity fees as required in paragraph (c)(2) of this section) and procedures under which the delegate makes such determinations.

(2) *Oversight.* The board of directors must take any measures reasonably necessary (through periodic reviews of fund investments and the delegate's procedures in connection with investment decisions, periodic review of the delegate's liquidity fee determinations under paragraph (c)(2) of this section, and prompt review of the adviser's actions in the event of the default of a security or event of insolvency with respect to the issuer of the security or any guarantee or demand feature to which it is subject that requires notification of the Commission under paragraph (f)(2) of this section by reference to Form N-CR (§ 274.222 of this chapter) to assure that the guidelines and procedures are being followed.

3. Amend § 270.31a-2 by revising paragraph (a)(2) to read as follows:

§ 270.31a-2 Records to be preserved by registered investment companies, certain majority-owned subsidiaries thereof, and other persons having transactions with registered investment companies.

(a) * * *

(2) Preserve for a period not less than six years from the end of the fiscal year in which any transaction occurred, the first two years in an easily accessible place, all books and records required to be made pursuant to § 270.31a-1(b)(5) through (12) and all vouchers, memoranda, correspondence, checkbooks, bank statements, cancelled checks, cash reconciliation, cancelled stock certificates, and all schedules evidencing and supporting each computation of net asset value of the investment company shares, including schedules evidencing and supporting each

computation of an adjustment to net asset value of the investment company shares based on swing pricing policies and procedures established and implemented pursuant to § 270.22c-1(a)(3), all schedules evidencing and supporting each computation of a liquidity fee by a money market fund pursuant to § 270.2a-7(c)(2), and other documents required to be maintained by § 270.31a-1(a) and not enumerated in § 270.31a-1(b).

* * * * *

PART 274 — FORMS PRESCRIBED UNDER THE INVESTMENT COMPANY ACT OF 1940

4. The general authority citation for part 274 continues to read as follows:

Authority: 15 U.S.C. 77f, 77g, 77h, 77j, 77s, 78c(b), 78l, 78m, 78n, 78o(d), 80a-8, 80a-24, 80a-26, 80a-29, and 80a-37 unless otherwise noted.

* * * * *

5. Amend Form N-1A (referenced in §§ 239.15A and 274.11A) by:

- a. Revising Item 4(b)(1)(ii);
- b. Revising Item 16(g);
- c. Removing instructions 2 and 3 to Item 16(g)(1); and
- d. Revising Item 27A(i).

Note: Form N-1A is attached as Appendix A to this document. Form N-1A does not appear in the Code of Federal Regulations.

6. Amend Form N-CSR (referenced in §§249.331 and 274.128) by:

- a. Revising the header to the instruction to paragraph (a) and (b) of Item 7 to read “Instructions to paragraphs (a) and (b)”;
- b. Redesignating the current instruction to Item 7 as Instruction 1; and
- c. Adding Instruction 2 to Item 7.

Note: Form N-CSR is attached in Appendix B to this document. Form N-CSR does not appear in the Code of Federal Regulations.

7. Revise Form N-MFP (referenced in § 274.201).

Note: Form N-MFP is attached as Appendix C to this document. Form N-MFP does not appear in the Code of Federal Regulations.

8. Amend Form N-CR (referenced in § 274.222) by:

- a. Revising the General Instructions in Sections A, C, D, and F, and Parts A and C;
- b. Removing Parts E, F, and G and replacing them with new Part E; and
- c. Redesignating Part H to Part F.

Note: Form N-CR is attached as Appendix D to this document. Form N-CR does not appear in the Code of Federal Regulations.

PART 279 — FORMS PRESCRIBED UNDER THE INVESTMENT ADVISERS ACT OF 1940

9. The authority citation for part 279 continues to read as follows:

Authority: The Investment Advisers Act of 1940, 15 U.S.C. 80b-1, *et seq.*, Pub. L. 111-203, 124 Stat. 1376.

10. Amend Form PF (referenced in § 279.9) by revising section 3 and the Glossary of Terms.

Note: Form PF is attached as Appendix E to this document. Form PF does not appear in the Code of Federal Regulations.

By the Commission.

Dated: July 12, 2023.

Vanessa A. Countryman,

Secretary.

Note: The following appendices will not appear in the Code of Federal Regulations.

Appendix A—Form N-1A

Form N-1A

* * * * *

Item 4. Risk/Return Summary: Investments, Risks, and Performance

* * * * *

(b) * * *

(1) * * *

(ii)(A) If the Fund is a Money Market Fund that is not a government Money Market Fund, as defined in §270.2a-7(a)(14) or a retail Money Market Fund, as defined in § 270.2a-7(a)(21), include the following statement:

You could lose money by investing in the Fund. Because the share price of the Fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The Fund may impose a fee upon sale of your shares. The Fund generally must impose a fee when net sales of Fund shares exceed certain levels. An investment in the Fund is not a bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor is not required to reimburse the Fund for losses, and you should not expect that the sponsor will provide financial support to the Fund at any time, including during periods of market stress.

(B) If the Fund is a Money Market Fund that is a government Money Market Fund, as defined in § 270.2a-7(a)(14), or a retail Money Market Fund, as defined in § 270.2a-7(a)(21), and that is subject to the requirements of § 270.2a-7(c)(2)(i) of this chapter or is not subject to the requirements of § 270.2a-7(c)(2)(i) pursuant to § 270.2a-7(c)(2)(i)(B) of this chapter, but has chosen to rely on the ability to impose liquidity fees consistent with the requirements of § 270.2a-7(c)(2)(i), include the following statement:

You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. The Fund may

impose a fee upon sale of your shares. An investment in the Fund is not bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor is not required to reimburse the Fund for losses, and you should not expect that the sponsor will provide financial support to the Fund at any time, including during periods of market stress.

(C) If the Fund is a Money Market Fund that is a government Money Market Fund, as defined in § 270.2a-7(a)(14), that is not subject to the requirements of § 270.2a-7(c)(2)(i) of this chapter pursuant to § 270.2a-7(c)(2)(i)(B) of this chapter, and that has not chosen to rely on the ability to impose liquidity fees consistent with the requirements of § 270.2a-7(c)(2)(i), include the following statement:

You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not a bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor is not required to reimburse the Fund for losses, and you should not expect that the sponsor will provide financial support to the Fund at any time, including during periods of market stress.

Instruction. If an affiliated person, promoter, or principal underwriter of the Fund, or an affiliated person of such a person, has contractually committed to provide financial support to the Fund, and the term of the agreement will extend for at least one year following the effective date of the Fund's registration statement, the statement specified in Item 4(b)(1)(ii)(A), Item 4(b)(1)(ii)(B), or Item 4(b)(1)(ii)(C) may omit the last sentence ("The Fund's sponsor is not required to reimburse the Fund for losses, and you should not expect that the sponsor will provide financial support to the Fund at any time, including during periods of market stress."). For purposes of this Instruction, the term "financial support" includes any capital contribution, purchase of a security from the Fund in reliance on § 270.17a-9, purchase of any defaulted or devalued security at par, execution of letter of credit or letter of indemnity, capital support

agreement (whether or not the Fund ultimately received support), performance guarantee, or any other similar action reasonably intended to increase or stabilize the value or liquidity of the fund's portfolio; however, the term "financial support" excludes any routine waiver of fees or reimbursement of fund expenses, routine inter-fund lending, routine inter-fund purchases of fund shares, or any action that would qualify as financial support as defined above, that the board of directors has otherwise determined not to be reasonably intended to increase or stabilize the value or liquidity of the fund's portfolio.

* * * * *

Item 16. Description of the Fund and Its Investments and Risks

* * * * *

(g) *Money Market Fund Material Events*. If the Fund is a Money Market Fund disclose, as applicable, the following events:

(1) *Imposition of Liquidity Fees*. During the last 10 years, any occasion on which the Fund has imposed a liquidity fee pursuant to § 270.2a-7(c)(2).

Instructions

1. With respect to each such occasion, disclose: the dates the Fund imposed a liquidity fee pursuant to § 270.2a-7(c)(2) and the size of the liquidity fee imposed on each of those dates.

* * * * *

Item 27A. Annual and Semi-Annual Shareholder Report

* * * * *

(i) *Availability of Additional Information*. Provide a brief, plain English statement that certain additional Fund information is available on [the Fund's] website. Include plain English references to, as applicable, the Fund's prospectus, financial information, holdings, and proxy voting information, including the information described in Instructions 2 and 3 to Item 17(f) of Form N-1A. A Fund also may refer to other information available on this website, including the

information described in Instruction 2 to paragraphs (a) and (b) of Item 7 of Form N-CSR, if it reasonably believes that shareholders likely would view the information as important.

Instructions

* * *

3. If a Fund (or financial intermediary through which shares of the Fund may be purchased or sold) receives a request for the Fund's proxy voting record by phone or email, the Fund (or financial intermediary) must send the information disclosed in the Fund's most recently filed report on Form N-PX in a human-readable format, within three business days of receipt of the request, by first-class mail or other means designed to ensure equally prompt delivery.

4. If a Fund has a website, it must make publicly available free of charge the information disclosed in the Fund's most recently filed report on Form N-PX on or through its website as soon as reasonably practicable after filing the report with the Commission.

The information disclosed in the Fund's most recently filed report on Form N-PX must be in a human-readable format and remain available on or through the Fund's website for as long as the Fund remains subject to the requirements of rule 30b1-4 (17 CFR 270.30b1-4). A Fund may satisfy the requirement to provide this information in a human-readable format by providing a direct link to the relevant HTML-rendered Form N-PX report on EDGAR.

* * * * *

FORM N-CSR

* * * * *

Item 7. Financial Statements and Financial Highlights for Open-End Management Investment Companies.

* * * * *

Instructions to paragraphs (a) and (b).

1. The financial statements and financial highlights filed under this Item must be audited and be accompanied by any associated accountant's report, as defined in rule 1-02(a) of Regulation S-X [17 CFR 210.1-02(a)], except that in the case of a report on this Form N-CSR

as of the end of a fiscal half-year, the financial statements and financial highlights need not be audited.

2. In the case of a Money Market Fund, Schedule I – Investments in securities of unaffiliated issuers [17 CFR 210.12-12B] may be omitted from its financial statements, provided that: (a) the Fund states in the report that the Fund's complete schedule of investments in securities of unaffiliated issuers is available (i) without charge, upon request, by calling a specified toll-free telephone number; (ii) on the Fund's website, if applicable; and (iii) on the Commission's website at [http:// www.sec.gov](http://www.sec.gov); and (b) whenever the Fund (or financial intermediary through which shares of the Fund may be purchased or sold) receives a request for the Fund's schedule of investments in securities of unaffiliated issuers, the Fund (or financial intermediary) sends a copy of Schedule I – Investments in securities of unaffiliated issuers within 3 business days of receipt by first-class mail or other means designed to ensure equally prompt delivery.

* * * * *

FORM N-MFP

**MONTHLY SCHEDULE OF PORTFOLIO
HOLDINGS OF MONEY MARKET FUNDS**

(See instructions following the required items)

Intentional misstatements or omissions of fact constitute Federal and criminal
violations.

See 18 U.S.C. 1001.

General Information

Item 1. Report for:

mm/dd/yyyy

Item 2. Name of Registrant: _____

Item 3. CIK Number of Registrant: _____

Item 4. LEI of Registrant: _____

Item 5. Name of Series: _____

Item 6. LEI of Series: _____

Item 7. EDGAR Series Identifier: _____

Item 8. Total number of share classes in the series: _____

Item 9. Do you anticipate that this will be the fund's final filing on Form N-MFP?

☐ Yes ☐ No

If Yes, answer Items 9.a – 9.c.

a. Is the fund liquidating? ☐ Yes ☐ No

b. Is the fund merging with, or being acquired by, another fund? ☐ Yes ☐ No

c. If applicable, identify the successor fund by CIK, Securities Act file number,
and EDGAR series identifier:

Item 10. Has the fund acquired or merged with another fund since the last filing? ☐ Yes ☐
No

If Yes, answer Item 10.a.

a. Identify the acquired or merged fund by CIK, Securities Act file number, and
EDGAR series identifier: _____

Item 11. Provide the name, email address, and telephone number of the person authorized to

receive information and respond to questions about this Form N-MFP:

Name _____

Email _____

Telephone _____

Part A. Series-Level Information about the Fund

Item A.1. Securities Act File Number. _____

Item A.2. Investment Adviser. _____

a. SEC file number of investment adviser. _____

Item A.3. Sub-Adviser. If a fund has one or more sub-advisers, disclose the name of each sub-adviser. _____

a. SEC file number of each sub-adviser. _____

Item A.4. Independent Public Accountant. _____

a. City and state of independent public accountant. _____

Item A.5. Administrator. If a fund has one or more administrators, disclose the name of each administrator. _____

Item A.6. Transfer Agent.

a. CIK Number. _____

b. SEC file number of transfer agent. _____

Item A.7. Master-Feeder Funds. Is this a Feeder Fund? ☐ Yes ☐ No

If Yes, answer Items A.7.a – 7.c.

a. Identify the Master Fund by CIK or, if the fund does not have a CIK, by name.

b. Securities Act file number of the Master Fund. _____

c. EDGAR series identifier of the Master Fund. _____

Item A.8. Master-Feeder Funds. Is this a Master Fund? ☐ Yes ☐ No

If Yes, answer Items A.8.a – 8.c.

a. Identify all Feeder Funds by CIK or, if the fund does not have a CIK, by name.

b. Securities Act file number of each Feeder Fund. _____

c. EDGAR series identifier of each Feeder Fund. _____

Item A.9. Is this series primarily used to fund insurance company separate accounts?

☐ Yes ☐ No

Item A.10. Category. Indicate the category that identifies the money market fund from among the following:

☐ Government

☐ Prime

☐ Single State

☐ Other Tax Exempt

a. Is this fund a Retail Money Market Fund? ☐ Yes ☐ No

b. If this is a Government Money Market Fund, does the fund typically invest at least 80% of the value of its assets in U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury obligations? ☐ Yes ☐ No

Item A.11. Dollar-weighted average portfolio maturity (“WAM” as defined in rule 2a-7(d)(1)(ii)). _____

Item A.12. Dollar-weighted average life maturity (“WAL” as defined in rule 2a-7(d)(1)(iii)). Calculate WAL without reference to the exceptions in rule 2a-7(i) regarding interest rate readjustments. _____

Item A.13. Liquidity. Provide the following, as of the close of business on each business day of the month reported:

a. Total Value of Daily Liquid Assets to the nearest cent. _____

b. Total Value of Weekly Liquid Assets (including Daily Liquid Assets) to the nearest cent. _____

c. Percentage of Total Assets invested in Daily Liquid Assets. _____

d. Percentage of Total Assets invested in Weekly Liquid Assets (including Daily Liquid Assets). _____

e. Date. _____

Item A.14. Provide the following, to the nearest cent:

- a. Cash. (*See General Instructions E.*) _____
- b. Total Value of portfolio securities. (*See General Instructions E.*)

- i. If any portfolio securities are valued using amortized cost, the total value of the portfolio securities valued at amortized cost. _____
- c. Total Value of other assets (excluding amounts provided in A.14.a–b.)

Item A.15. Total value of liabilities, to the nearest cent. _____

Item A.16. Net assets of the series, to the nearest cent. _____

Item A.17. Number of shares outstanding, to the nearest hundredth. _____

Item A.18. Does the fund seek to maintain a stable price per share? ☐ Yes ☐ No

- a. If yes, state the price the fund seeks to maintain. _____

Item A.19. 7-day gross yield. For each business day, based on the immediately preceding 7 business days, calculate the fund's yield by determining the net change, exclusive of capital changes and income other than investment income, in the value of a hypothetical pre-existing account having a balance of one share at the beginning of the period and dividing the difference by the value of the account at the beginning of the base period to obtain the base period return, and then multiplying the base period return by (365/7) with the resulting yield figure carried to at least the nearest hundredth of one percent. The 7-day gross yield should not reflect a deduction of shareholders fees and fund operating expenses. For master funds and feeder funds, report the 7-day gross yield at the master-fund level.

- a. 7-day gross yield _____
- b. Date _____

Item A.20. Net asset value per share. Provide the net asset value per share, calculated using available market quotations (or an appropriate substitute that reflects current market conditions) rounded to the fourth decimal place in the case of a fund with a \$1.0000 share price (or an equivalent level of accuracy for funds with a different share price), as of the close of business on each business day of the month reported.

- a. Net asset value per share _____
- b. Date _____

Item A.21. Is the fund established as a cash management vehicle for affiliated funds or other accounts managed by related entities or their affiliates and not available to other investors? ☐ Yes ☐ No

Item A.22. Liquidity Fee. During the reporting period, did the fund apply any liquidity

fees under rule 2a-7(c)(2)? [] Yes [] No

If Yes, answer Item A.22.a.

a. For each business day the fund applied a liquidity fee during the reporting period, provide:

i. The date on which the liquidity fee was applied: _____

ii. The type of liquidity fee:

☐ Mandatory liquidity fee, with the amount of the fee based on good faith estimates of liquidity costs under rule 2a-7(c)(2)(iii)(A)

☐ Mandatory liquidity fee, using the default amount under rule 2a-7(c)(2)(iii)(C)

☐ Discretionary liquidity fee under rule 2a-7(c)(2)(ii)

iii. The total dollar amount of the liquidity fee applied to redemptions: _____

iv. The amount of the liquidity fee as a percentage of the value of shares redeemed: _____

Part B: Class-Level Information about the Fund

For each Class of the Series (regardless of the number of shares outstanding in the Class), disclose the following:

Item B.1. Full name of the Class. _____

Item B.2. EDGAR Class identifier. _____

Item B.3. Minimum initial investment. _____

Item B.4. Net assets of the Class, to the nearest cent. _____

Item B.5. Number of shares outstanding, to the nearest hundredth. _____

Item B.6. Net asset value per share. Provide the net asset value per share, calculated using available market quotations (or an appropriate substitute that reflects current market conditions) rounded to the fourth decimal place in the case of a fund with a \$1.0000 share price (or an equivalent level of accuracy for funds with a different share price), as of the close of business on each business day of the month reported.

a. Net asset value per share _____

b. Date _____

Item B.7. Shareholder flow. Provide (a) the daily gross subscriptions (including dividend reinvestments) and gross redemptions, rounded to the nearest cent, as of the close

of business on each business day of the month reported; and (b) the total gross subscriptions (including dividend reinvestments) and total gross redemptions for the month reported. For purposes of this Item, report gross subscriptions (including dividend reinvestments) and gross redemptions as of the trade date, and for Master-Feeder Funds, only report the required shareholder flow data at the Feeder Fund level.

a. Daily shareholder flows:

- i. Gross subscriptions (including dividend reinvestments) _____
- ii. Gross redemptions _____
- iii. Date _____

b. Monthly shareholder flows:

- i. Total gross subscriptions (including dividend reinvestments) _____
- ii. Total gross redemptions _____

Item B.8. 7-day net yield for each business day of the month reported, as calculated under Item 26(a)(1) of Form N-1A (§ 274.11A of this chapter) except based on the 7 business days immediately preceding a given business day.

- a. 7-day net yield _____
- b. Date _____

Item B.9. During the reporting period, did any person pay for or waive all or part of the fund's operating expenses or management fees? [] Yes [] No

If Yes, answer Item B.9.a.

- a. Total amount of the expense payment or fee waiver, or both (reported in dollars). _____

Item B.10. For each person who owns of record or is known by the fund to own beneficially 5% or more of the shares outstanding in the Class, provide the following information. For purposes of this question, if the fund knows that two or more beneficial owners of the Class are affiliated with each other, treat them as a single beneficial owner when calculating the percentage ownership and identify separately each affiliated beneficial owner by type and the percentage interest of each affiliated beneficial owner. An affiliated beneficial owner is one that directly or indirectly controls or is controlled by another beneficial owner or is under common control with any other beneficial owner.

a. Type of beneficial owner or record owner:

- ☐ Retail investor
- ☐ Non-financial corporation
- ☐ Pension plan
- ☐ Non-profit

- ☐ State or municipal government entity (excluding governmental pension plans)
- ☐ Registered investment company
- ☐ Private fund
- ☐ Depository institution or other banking institution
- ☐ Sovereign wealth fund
- ☐ Broker-dealer
- ☐ Insurance company
- ☐ Other

If *Other*, provide a brief description of the type of investor included in this category. _____

- b. Percent of shares outstanding in the Class owned of record _____
- c. Percent of shares outstanding in the Class owned beneficially _____

Item B.11. Shareholder Composition. If the fund is not a Government Money Market Fund or Retail Money Market Fund, identify the percentage of investors within the following categories:

- a. Non-financial corporations: _____
- b. Pension plans: _____
- c. Non-profits: _____
- d. State or municipal government entities (excluding governmental pension plans):

- e. Registered investment companies: _____
- f. Private funds: _____
- g. Depository institutions and other banking institutions: _____
- h. Sovereign wealth funds: _____
- i. Broker-dealers: _____
- j. Insurance companies: _____
- k. Other: _____

If *Other*, provide a brief description of the types of investors included in this category. _____

Item B.12. Share Cancellation. During the reporting period, were any shares cancelled under rule 2a-7(c)(3)? [] Yes [] No

If Yes, answer Item B.12.a.

a. For each business day shares were cancelled under rule 2a-7(c)(3) during the reporting period, provide:

i. Dollar value of shares cancelled _____

ii. Number of shares cancelled _____

iii. Date _____

Part C: Schedule of Portfolio Securities

For each security held by the money market fund, disclose the following information.

Item C.1. The name of the issuer or the name of the counterparty in a repurchase agreement.

Item C.2. The title of the issue (including coupon, if applicable) _____

Item C.3. The CUSIP. _____

Item C.4. The LEI. _____

Item C.5. Other identifier. In addition to CUSIP and LEI, provide at least one of the following other identifiers, if available:

a. The ISIN; _____

b. The CIK; _____

c. The RSSD ID; _____ or

d. Other unique identifier. _____

Item C.6. The category of investment. Indicate the category that most closely identifies the instrument from among the following:

☐ U.S. Treasury Debt

☐ U.S. Government Agency Debt
(if categorized as coupon-paying notes)

☐ U.S. Government Agency Debt
(if categorized as no-coupon discount notes)

☐ Non-U.S. Sovereign, Sub-Sovereign and Supra-National Debt

☐ Certificate of Deposit

☐ Non-Negotiable Time Deposit

☐ Variable Rate Demand Note

☐ Other Municipal Security

☐ Asset Backed Commercial Paper

☐ Other Asset Backed Securities

☐ U.S. Treasury Repurchase Agreement
if collateralized only by U.S. Treasuries

☐ U.S. Government Agency Repurchase Agreement

(including Strips) and cash
Government

collateralized only by U.S.

and cash

Agency securities, U.S. Treasuries,

☐ Other Repurchase Agreement
if collateral falls outside Treasury,
Government Agency, and cash

☐ Insurance Company Funding
Agreement

☐ Investment Company

☐ Financial Company Commercial
Paper

☐ Non-Financial Company Commercial Paper

☐ Tender Option Bond

☐ Other Instrument

If *Other Instrument*, include a brief description. _____

Item C.7. If the security is a repurchase agreement, is the fund treating the acquisition of the repurchase agreement as the acquisition of the underlying securities (i.e., collateral) for purposes of portfolio diversification under rule 2a-7?

☐ Yes ☐ No

Item C.8. For all repurchase agreements, specify whether the repurchase agreement is “open” (i.e., the repurchase agreement has no specified end date and, by its terms, will be extended or “rolled” each business day (or at another specified period) unless the investor chooses to terminate it), and describe the securities subject to the repurchase agreement (i.e., collateral).

a. Is the repurchase agreement “open”? ☐ Yes ☐ No

b. Is the repurchase agreement centrally cleared? ☐ Yes ☐ No

If *Yes*, provide the name of the central clearing counterparty (CCP).

c. Is the repurchase agreement settled on the triparty platform ☐ Yes ☐ No

d. The name of the collateral issuer. _____

e. LEI. _____

f. The CUSIP. _____

g. Maturity date. _____

h. Coupon or yield. _____

i. The principal amount, to the nearest cent. _____

j. Value of collateral, to the nearest cent. _____

k. The category of investment that most closely represents the collateral, selected from among the following:

☐ Asset-Backed Securities

☐ Agency Collateralized
Mortgage Obligations

☐ Agency Debentures and Agency Strips

☐ Agency Mortgage-Backed
Securities

- ☐ Private Label Collateralized Mortgage Obligations ☐ Corporate Debt Securities
- ☐ Equities ☐ Money Market
- ☐ U.S. Treasuries (including strips) ☐ Cash
- ☐ Other Instrument. If *Other Instrument*, include a brief description, including, if applicable, whether it is a collateralized debt obligation, municipal debt, whole loan, or international debt.
-

If multiple securities of an issuer are subject to the repurchase agreement, the securities may be aggregated, in which case disclose:

- a. the total principal amount and value _____ and
- b. the range of maturity dates and interest rates. _____

Item C.9. Is the security an Eligible Security? ☐ Yes ☐ No

Item C.10. Security rating(s) considered. Provide each rating assigned by any NRSRO that the fund's board of directors (or its delegate) considered in determining that the security presents minimal credit risks (together with the name of the assigning NRSRO). If none, leave blank. _____

Item C.11. The maturity date determined by taking into account the maturity shortening provisions of rule 2a-7(i) (i.e., the maturity date used to calculate WAM under rule 2a-7(d)(1)(ii)).

mm/dd/yyyy

Item C.12. The maturity date determined without reference to the exceptions in rule 2a-7(i) regarding interest rate readjustments (i.e., the maturity date used to calculate WAL under rule 2a-7(d)(1)(iii)).

mm/dd/yyyy

Item C.13. The maturity date determined without reference to the maturity shortening provisions of rule 2a-7(i) (i.e., the ultimate legal maturity date on which, in accordance with the terms of the security without regard to any interest rate readjustment or demand feature, the principal amount must unconditionally be paid).

mm/dd/yyyy

Item C.14. Does the security have a Demand Feature on which the fund is relying to determine the quality, maturity or liquidity of the security? ☐ Y ☐ N *If Yes, answer*

Items C.14.a – 14.e. Where applicable, provide the information required in Items C.14.b-14.e in the order that each Demand Feature issuer was reported in Item C.14.a.

- a. The identity of the Demand Feature issuer(s). _____
- b. The amount (i.e., percentage) of fractional support provided by each Demand Feature issuer. _____
- c. The period remaining until the principal amount of the security may be recovered through the Demand Feature. _____
- d. Is the demand feature conditional? ☐ Yes ☐ No
- e. Rating(s) considered. Provide each rating assigned to the demand feature(s) or demand feature provider(s) by any NRSRO that the board of directors (or its delegate) considered in evaluating the quality, maturity or liquidity of the security (together with the name of the assigning NRSRO). If none, leave blank.

Item C.15. Does the security have a Guarantee (other than an unconditional letter of credit disclosed in item C.14 above) on which the fund is relying to determine the quality, maturity or liquidity of the security? ☐ Yes ☐ No *If Yes, answer Items C.15.a – 15.c. Where applicable, provide the information required in Item C.15.b – 15.c in the order that each Guarantor was reported in Item C.15.a.*

- a. The identity of the Guarantor(s). _____
- b. The amount (i.e., percentage) of fractional support provided by each Guarantor.

- c. Rating(s) considered. Provide each rating assigned to the guarantee(s) or guarantor(s) by any NRSRO that the board of directors (or its delegate) considered in evaluating the quality, maturity or liquidity of the security (together with the name of the assigning NRSRO).
If none, leave blank. _____

Item C.16. Does the security have any enhancements, other than those identified in Items C.14 and C.15 above, on which the fund is relying to determine the quality, maturity or liquidity of the security?

- ☐ Yes ☐ No *If Yes, answer Items C.16.a – 16.d. Where applicable, provide the information required in Items C.16.b – 16.d in the order that each enhancement provider was reported in Item C.16.a.*

- a. The identity of the enhancement provider(s). _____
- b. The type of enhancement(s). _____
- c. The amount (i.e., percentage) of fractional support provided by each enhancement provider. _____
- d. Rating(s) considered. Provide each rating assigned to the enhancement(s) or enhancement provider(s) by any NRSRO that the board of directors (or its delegate) considered in evaluating the quality, maturity or liquidity of the security (together with the name of the assigning NRSRO). If none, leave blank. _____

Item C.17. The yield of the security as of the reporting date. _____

Item C.18. The total Value of the fund's position in the security, to the nearest cent: (*See General Instruction E.*) _____

a. *Including* the value of any sponsor support: _____

b. *Excluding* the value of any sponsor support: _____

Item C.19. The percentage of the money market fund's net assets invested in the security, to the nearest hundredth of a percent. _____%

Item C.20. Is the security categorized at level 3 in the fair value hierarchy under U.S. Generally Accepted Accounting Principles (*ASC 820, Fair Value Measurement*)?
☐ Yes ☐ No

Item C.21. Is the security a Daily Liquid Asset? ☐ Yes ☐ No

Item C.22. Is the security a Weekly Liquid Asset? ☐ Yes ☐ No

Item C.23. Is the security an Illiquid Security? ☐ Yes ☐ No

Item C.24. Explanatory notes. Disclose any other information that may be material to other disclosures related to the portfolio security. If none, leave blank.

Part D. Disposition of Portfolio Securities

Item D.1. Disclose the gross market value of portfolio securities the money market fund sold or disposed of during the reporting period by category of investment. Do not include portfolio securities that the fund held until maturity. A money market fund that is a Government Money Market Fund or a tax exempt fund, as defined in rule 2a-7(a)(23) [17 CFR

270.2a-7(a)(23)], is not required to respond to Part D.

- a. U.S. Treasury Debt, to the nearest cent. _____
- b. U.S. Government Agency Debt (if categorized as coupon-paying notes), to the nearest cent. _____
- c. U.S. Government Agency Debt (if categorized as no-coupon discount notes), to the nearest cent. _____
- d. Non-U.S. Sovereign, Sub-Sovereign and Supra-National Debt, to the nearest cent. _____
- e. Certificate of Deposit, to the nearest cent. _____
- f. Non-Negotiable Time Deposit, to the nearest cent. _____
- g. Variable Rate Demand Note, to the nearest cent. _____
- h. Other Municipal Security, to the nearest cent. _____
- i. Asset Backed Commercial Paper, to the nearest cent. _____
- j. Other Asset Backed Securities, to the nearest cent. _____
- k. U.S. Treasury Repurchase Agreement (if collateralized only by U.S. Treasuries (including Strips) and cash), to the nearest cent. _____
- l. U.S. Government Agency Repurchase Agreement (collateralized only by U.S. Government Agency securities, U.S. Treasuries, and cash), to the nearest cent. _____
- m. Other Repurchase Agreement (if collateral falls outside Treasury, Government Agency, and cash), to the nearest cent. _____
- n. Insurance Company Funding Agreement, to the nearest cent. _____
- o. Investment Company, to the nearest cent. _____
- p. Financial Company Commercial Paper, to the nearest cent. _____
- q. Non-Financial Company Commercial Paper, to the nearest cent. _____
- r. Tender Option Bond, to the nearest cent. _____
- s. Other Instrument, to the nearest cent. _____

If *Other Instrument*, include a brief description _____

SIGNATURES

Pursuant to the requirements of the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

(Registrant)

mm/dd/yy

(Signature)

Name

Title

*Print name and title of the signing officer under
his/her signature.

FORM N-MFP
MONTHLY SCHEDULE OF PORTFOLIO HOLDINGS OF MONEY MARKET FUNDS

Form N-MFP is to be used by registered open-end management investment companies, or series thereof, that are regulated as money market funds pursuant to rule 2a-7 under the Investment Company Act of 1940 (“Act”) (17 CFR 270.2a-7) (“money market funds”), to file reports with the Commission pursuant to rule 30b1-7 under the Act (17 CFR 270.30b1-7). The Commission may use the information provided on Form N-MFP in its regulatory, disclosure review, inspection, and policymaking roles.

General Instructions

A. Rule as to Use of Form N-MFP

Form N-MFP is the public reporting form that is to be used for monthly reports of money market funds required by section 30(b) of the Act and rule 30b1-7 under the Act (17 CFR 270.30b1-7). A money market fund must report information about the fund and its portfolio holdings as of the last business day or any subsequent calendar day of the preceding month. The Form N-MFP must be filed with the Commission no later than the fifth business day of each month, but may be filed any time beginning on the first business day of the month. Each money market fund, or series of a money market fund, is required to file a separate form. If the money market fund does not have any classes, the fund must provide the information required by Part B for the series. A money market fund is not required to respond to an item that is wholly inapplicable. If an item requests information that is not applicable (for example, a company does not have an LEI), respond N/A.

A money market fund may file an amendment to a previously filed Form N-MFP at any time, including an amendment to correct a mistake or error in a previously filed form. A fund that files an amendment to a previously filed form must provide information in response to all items of Form N-MFP, regardless of why the amendment is filed.

B. Application of General Rules and Regulations

The General Rules and Regulations under the Act contain certain general requirements that are applicable to reporting on any form under the Act. These general requirements should be carefully read and observed in the preparation and filing of reports on this form, except that any provision in the form or in these instructions shall be controlling.

C. Filing of Form N-MFP

A money market fund must file Form N-MFP in accordance with rule 232.13 of Regulation S-T. Form N-MFP must be filed electronically using the Commission’s EDGAR system.

D. Paperwork Reduction Act Information

A registrant is not required to respond to the collection of information contained in Form N-MFP unless the Form displays a currently valid Office of Management and Budget (“OMB”) control number. Please direct comments concerning the accuracy of the

information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. 3507.

E. Definitions

References to sections and rules in this Form N-MFP are to the Investment Company Act of 1940 [15 U.S.C. 80a] (the “Investment Company Act”), unless otherwise indicated. Terms used in this Form N-MFP have the same meaning as in the Investment Company Act or related rules, unless otherwise indicated.

As used in this Form N-MFP, the terms set out below have the following meanings:

“Cash” means demand deposits in depository institutions and cash holdings in custodial accounts.

“Class” means a class of shares issued by a Multiple Class Fund that represents interests in the same portfolio of securities under rule 18f-3 [17 CFR 270.18f-3] or under an order exempting the Multiple Class Fund from sections 18(f), 18(g), and 18(i) [15 U.S.C. 80a-18(f), 18(g), and 18(i)].

“Fund” means the Registrant or a separate Series of the Registrant. When an item of Form N-MFP specifically applies to a Registrant or a Series, those terms will be used.

“Government Money Market Fund” means a money market fund as defined in 17 CFR 270.2a-7(a)(14).

“LEI” means, with respect to any company, the “legal entity identifier” assigned by or on behalf of an internationally recognized standards setting body and required for reporting purposes by the U.S. Department of the Treasury’s Office of Financial Research or a financial regulator.

“Master-Feeder Fund” means a two-tiered arrangement in which one or more Funds (or registered or unregistered pooled investment vehicles) (each a “Feeder Fund”) holds shares of a single Fund (the “Master Fund”) in accordance with section 12(d)(1)(E) [15 U.S.C. 80a-12(d)(1)(E)].

“Money Market Fund” means a registered open-end management investment company, or series thereof, that is regulated as a money market fund pursuant to rule 2a-7 (17 CFR 270.2a-7) under the Investment Company Act of 1940.

“Retail Money Market Fund” means a money market fund as defined in 17 CFR 270.2a-7(a)(21).

“RSSD ID” means the identifier assigned by the National Information Center of the Board of Governors of the Federal Reserve System, if any.

“Securities Act” means the Securities Act of 1933 [15 U.S.C. 77a - aa].

“Series” means shares offered by a Registrant that represent undivided interests in a portfolio of investments and that are preferred over all other series of shares for assets specifically allocated to that series in accordance with rule 18f-2(a) [17 CFR 270.18f-2(a)].

“Value” has the meaning defined in section 2(a)(41) of the Act (15 U.S.C. 80a-2(a)(41)).

Appendix D–Form N-CR

FORM N-CR

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GENERAL INSTRUCTIONS

A. Rule as to Use of Form N-CR

Form N-CR is the public reporting form that is to be used for current reports of money market funds required by section 30(b) of the Act and rule 30b1-8 under the Act. A money market fund must file a report on Form N-CR upon the occurrence of any one or more of the events specified in Parts B – F of this form. Unless otherwise specified, a report is to be filed within one business day after occurrence of the event. A report will be made public immediately upon filing. If the event occurs on a Saturday, Sunday, or holiday on which the Commission is not open for business, then the report is to be filed on the first business day thereafter.

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C. Information to Be Included in Report Filed on Form N-CR

Upon the occurrence of any one or more of the events specified in Parts B – F of Form N-CR, a money market fund must file a report on Form N-CR that includes information in response to each of the items in Part A of the form, as well as each of the items in the applicable Parts B – F of the form.

D. Filing of Form N-CR

A money market fund must file Form N-CR in accordance with rule 232.13 of Regulation S-T. Reports on Form N-CR must be filed electronically using the Commission’s Electronic Data Gathering, Analysis, and Retrieval (“EDGAR”) system in accordance with Regulation S-T. Consult the EDGAR Filer Manual and Appendices for EDGAR filing instructions.

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F. Definitions

References to sections and rules in this Form N-CR are to the Investment Company Act (15 U.S.C 80a), unless otherwise indicated. Terms used in this Form N-CR have the same meaning as in the Investment Company Act or rule 2a-7 under the Investment Company Act, unless otherwise indicated.

In addition, the following definitions apply:

“Fund” means the registrant or a separate series of the registrant.

“LEI” means, with respect to any company, the “legal entity identifier” as assigned by a utility endorsed by the Global LEI Regulatory Oversight Committee or accredited by the Global LEI Foundation.

“Registrant” means the investment company filing this report or on whose behalf the report is filed.

“Series” means shares offered by a Registrant that represent undivided interests in a portfolio of investments and that are preferred over all other series of shares for assets specifically allocated to that series in accordance with rule 18f-2(a) (17 CFR 270.18f-2(a)).

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Part A: General information

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- | | |
|----------|---|
| Item A.2 | Name of registrant. |
| Item A.3 | CIK Number of registrant. |
| Item A.4 | LEI of registrant. |
| Item A.5 | Name of series. |
| Item A.6 | EDGAR Series Identifier. |
| Item A.7 | LEI of series. |
| Item A.8 | Securities Act File Number. |
| Item A.9 | Provide the name, email address, and telephone number of the person authorized to receive information and respond to questions about this |

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Part C: Provision of financial support to fund

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Item C.6 Security supported (if applicable). Disclose the name of the issuer, the title of the issue (including coupon or yield, if applicable), at least two identifiers, if available (*e.g.*, CUSIP, ISIN, CIK, LEI), and the date the fund acquired the security.

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Part E: Liquidity threshold event

If a fund has invested less than: (i) 25% of its total assets in weekly liquid assets or (ii) 12.5% of its total assets in daily liquid assets, disclose the following information:

- Item E.1 Initial date on which the fund invested less than 25% of its total assets in weekly liquid assets, if applicable.
- Item E.2 Initial date on which the fund invested less than 12.5% of its total assets in daily liquid assets, if applicable.
- Item E.3 Percentage of the fund's total assets invested in both weekly liquid assets and daily liquid assets as of any dates reported in Items E.1 or E.2.
- Item E.4 Brief description of the facts and circumstances leading to the fund investing less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets, as applicable.

Instruction. A report responding to Items E.1, E.2, and E.3 is to be filed within one business day after occurrence of an event contemplated in this Part E. An amended report responding to Item E.4 is to be filed within four business days after occurrence of an event contemplated in this Part E.

Part F: Optional disclosure

If a fund chooses, at its option, to disclose any other events or information not otherwise required by this form, it may do so under this Item F.1.

Item F.1 Optional disclosure.

Instruction. Item F.1 is intended to provide a fund with additional flexibility, if it so chooses, to disclose any other events or information not otherwise required by this form, or to supplement or clarify any of the disclosures required elsewhere in this form. Part F does not impose on funds any affirmative obligation. A fund may file a report on Form N-CR responding to Part F at any time.

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Section 3: Information about *liquidity funds* that you advise.

You must complete a separate Section 3 for each *liquidity fund* that you advise. However, with respect to *master-feeder arrangements* and *parallel fund structures*, you may report collectively or separately about the component funds as provided in the General Instructions.

Item A. Reporting fund identifying and operational information

51. (a) Name of the *reporting fund*
- (b) *Private fund* identification number of the *reporting fund*
52. (a) Does the *reporting fund* seek to maintain a stable price per share?
- ☐ Yes ☐ No
- (b) If yes, state the price the *reporting fund* seeks to maintain.....

Item B. *Reporting fund assets*

53. Provide the following information for each month of the *reporting period*.

	1 st Month	2 nd Month	3 rd Month
(a) Net asset value of <i>reporting fund</i> as reported to current and prospective investors			
(b) Net asset value per share of <i>reporting fund</i> as reported to current and prospective investors (<i>to the nearest hundredth of a cent</i>)			
(c) Net asset value per share of <i>reporting fund</i> (<i>to the nearest hundredth of a cent; exclude the value of any capital support agreement or similar arrangement</i>)			
(d) <i>WAM</i> of <i>reporting fund</i> (<i>in days</i>)			
(e) <i>WAL</i> of <i>reporting fund</i> (<i>in days</i>)			
(f) 7-day gross yield of <i>reporting fund</i> (<i>to the nearest hundredth of one percent</i>)			

- (g) Dollar amount of the *reporting fund's* assets that are *daily liquid assets*
- (h) Dollar amount of the *reporting fund's* assets that are *weekly liquid assets*
- (i) Dollar amount of the *reporting fund's* assets that have a *maturity* greater than 397 days
- (j) Amount of cash held by the *reporting fund*
- (k) Total gross subscriptions (including dividend reinvestments)
- (l) Total gross redemptions

Item C. Financing information

54. (a) Is the amount of total *borrowing* reported in response to Question 12 equal to or greater than 5% of the *reporting fund's net asset value*?

☐ Yes ☐ No

- (b) If you responded “yes” to Question 54(a) above, divide the dollar amount of total *borrowing* reported in response to Question 12 among the periods specified below depending on the type of *borrowing*, the type of creditor and the latest date on which the reporting fund may repay the principal amount of the *borrowing* without defaulting or incurring penalties or additional fees.

(If a creditor (or syndicate or administrative/collateral agent) is permitted to vary unilaterally the economic terms of the financing or to revalue posted collateral in its own discretion and demand additional collateral, then the borrowing should be deemed to have a maturity of 1 day or less for purposes of this question. For amortizing loans, each amortization payment should be treated separately and grouped with other borrowings based on its payment date.)

(The total amount of borrowings reported below should equal approximately the total amount of borrowing reported in response to Question 12.)

	1 day or less	2 days to 7 days	8 days to 30 days	31 days to 397 days	Greater than 397 days
(i) <i>Unsecured borrowing</i>					
(A) <i>U.S. depository institutions</i>					
(B) <i>U.S. creditors that are not U.S. depository institutions</i>					
(C) <i>Non-U.S. creditors</i>					

- (ii) *Secured borrowing*
- (A) *U.S. depository institutions*

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(B) U.S. creditors that are not
U.S. depository institutions

(C) Non-U.S. creditors

55. (a) Does the *reporting fund* have in place one or more committed liquidity facilities?

☐

Yes

☐

No

(b) If you responded “yes” to Question 55(a), provide the aggregate dollar amount of commitments under the liquidity facilities

Item D. Investor information

56. Specify the number of outstanding shares or units of the *reporting fund*’s stock or similar securities.

57. Is the *reporting fund* established as a cash management vehicle for other funds or accounts that you or your *affiliates* manage that are not cash management vehicles?

☐

Yes

☐

No

58. Provide the following information regarding investor concentration.

(For purposes of this question, if you know that two or more beneficial owners of the reporting fund are affiliated with each other, you should treat them as a single beneficial owner.)

(a) Specify the percentage of the *reporting fund*’s equity that is beneficially owned by the beneficial owner having the largest equity interest in the *reporting fund*.

(b) For each investor that beneficially owns 5% or more of the reporting fund’s equity, provide the following information. If you select “other” as an investor category, describe the investor in Question 4.

(i) Investor Category	(ii) Investor’s percent of equity of the <i>reporting fund</i> on the <i>data reporting date</i>
[Drop-down menu of investor categories in Question 16]	
[Drop-down menu of investor categories in Question 16]	
<i>Et cetera.</i>	

59. Provide a good faith estimate, as of the *data reporting date*, of the percentage of the *reporting fund*’s outstanding equity that was purchased using *securities lending collateral*.

60. Provide the following information regarding the restrictions on withdrawals and redemptions by investors in the *reporting fund*.

(For Questions 60 and 61, please note that the standards for imposing suspensions and restrictions on withdrawals/redemptions may vary among funds. Make a good faith determination of the provisions that would likely be triggered during conditions that you view as significant market stress.)

As of the *data reporting date*, what percentage of the *reporting fund's net asset value*, if any:

- (a) May be subjected to a suspension of investor withdrawals/redemptions by an adviser or fund governing body *(this question relates to an adviser's or governing body's right to suspend and not just whether a suspension is currently effective)*.
- (b) May be subjected to material restrictions on investor withdrawals/ redemptions (e.g., "gates") by an adviser or fund governing body *(this question relates to an adviser's or governing body's right to impose a restriction and not just whether a restriction been imposed)*.
- (c) Is subject to a suspension of investor withdrawals/redemptions *(this question relates to whether a suspension is currently effective and not just an adviser's or governing body's right to suspend)*.
- (d) Is subject to a material restriction on investor withdrawals/redemptions (e.g., a "gate") *(this question relates to whether a restriction has been imposed and not just an adviser's or governing body's right to impose a restriction)*.

61. Investor liquidity (as a % of *net asset value*):

(Divide the reporting fund's net asset value among the periods specified below depending on the shortest period within which investors are entitled, under the fund documents, to withdraw invested funds or receive redemption payments, as applicable. Assume that you would impose gates where applicable but that you would not completely suspend withdrawals/redemptions and that there are no redemption fees. Please base on the notice period before the valuation date rather than the date proceeds would be paid to investors. The total should add up to 100%.)

	% of NAV locked for
1 day or less	
2 days – 7 days	
8 days – 30 days	
31 days – 90 days	

91 days – 180 days

181 days – 365 days

Longer than 365 days

Item E. Portfolio Information

62. For each security held by the *reporting fund*, provide the following information for each month of the *reporting period*.

- (a) Name of the issuer or the name of counterparty in a *repo*.....
- (b) Title of the issue (including coupon, if applicable).....
- (c) CUSIP.....
- (d) *LEI*, if any.....
- (e) In addition to CUSIP and *LEI*, provide at least one of the following other identifiers, if any:
 - (i) ISIN.....
 - (ii) CIK.....
 - (iii) Other unique identifier (indicate identifier and type of identifier)...
- (f) The category of investment that most closely identifies the instrument
(Select from among the following categories of investment: U.S. Treasury Debt; U.S. Government Agency Debt (if categorized as coupon-paying notes); U.S. Government Agency Debt (if categorized as no-coupon-discount notes); Non-U.S. Sovereign, Sub-Sovereign and Supra-National debt; Certificate of Deposit; Non-Negotiable Time Deposit; Variable Rate Demand Note; Other Municipal Security; Asset Backed Commercial Paper; Other Asset Backed Securities; U.S. Treasury Repo Agreement, if collateralized only by U.S. Treasuries (including Strips) and cash; U.S. Government Agency Repo Agreement, collateralized only by U.S. Government Agency securities, U.S. Treasuries, and cash; Other Repo Agreement, if any collateral falls outside Treasury, Government Agency and cash; Insurance Company Funding Agreement; Investment Company; Financial Company Commercial Paper; Non-Financial Company Commercial Paper; Tender Option Bond; or Other Instrument. If Other Instrument, include a brief description.)
- (g) For repos, specify whether the repo is “open” (*i.e.*, the repo has no specified end date and, by its terms, will be extended or “rolled” each business day (or at another specified period) unless the investor chooses to terminate it), and provide the following information about the securities subject to the repo (*i.e.*, the collateral):

(If multiple securities of an issuer are subject to the repo, the securities may be aggregated, in which case provide: (i) the total principal amount and value and (ii) the range of maturity dates and interest rates.)

- (i) Is the *repo* “open?” ☐ Yes ☐ No
- (ii) Is the *repo* centrally cleared? ☐ Yes ☐ No
- (iii) If the *repo* is centrally cleared, identify the CCP.....
- (iv) Is the *repo* settled on a tri-party platform? ☐ Yes ☐ No
- (v) Name of the collateral issuer
- (vi) CUSIP.....
- (vii) *LEI*, if any
- (viii) Maturity date
- (ix) Coupon or yield
- (x) The principal amount, to the nearest cent.....
- (xi) Value of the collateral, to the nearest cent.....
- (xii) The category of investment that most closely represents the collateral

(Select from among the following categories for the collateral: Asset-Backed Securities; Agency Collateralized Mortgage Obligations; Agency Debentures and Agency Strips; Agency Mortgage-Backed Securities; Private Label Collateralized Mortgage Obligations; Corporate Debt Securities; Equities; Money Market; U.S. Treasuries (including strips); Cash; Other Instrument. If Other Instrument, include a brief description, including, if applicable, whether it is a collateralized debt obligation, municipal debt, whole loan, or international debt).

- (h) If the rating assigned by a *credit rating agency* played a substantial role in the *reporting fund*’s (or its adviser’s) evaluation of the quality, maturity or liquidity of the security, provide the name of each *credit rating agency* and the rating each assigned to the security.
- (i) The maturity date used to calculate *WAM*
- (j) The maturity date used to calculate *WAL*
- (k) The ultimate legal maturity date (*i.e.*, the date on which, in accordance with the terms of the security without regard to any interest rate readjustment or *demand feature*, the principal amount must unconditionally be paid).....
- (l) If the security has a *demand feature* on which the *reporting fund* (or its adviser) is relying when evaluating the quality, maturity, or liquidity of the security, provide the following information:

(If the security does not have such a demand feature, enter “NA.”)

- (i) Identity of the *demand feature* issuer(s)
 - (ii) If the rating assigned by a *credit rating agency* played a substantial role in the *reporting fund's* (or its adviser's) evaluation of the quality, maturity or liquidity of the *demand feature*, its issuer, or the security to which it relates, provide the name of each *credit rating agency* and the rating assigned by each *credit rating agency*
 - (iii) The period remaining until the principal amount of the security may be recovered through the *demand feature*
 - (iv) The amount (*i.e.*, percentage) of fractional support provided by each *demand feature* issuer.....
 - (v) Whether the *demand feature* is a *conditional demand feature*.....
- (m) If the security has a *guarantee* (other than an unconditional letter of credit reported in response to Question 62(l) above) on which the *reporting fund* (or its adviser) is relying when evaluating the quality, maturity, or liquidity of the security, provide the following information:
(If the security does not have such a guarantee, enter "NA.")
- (i) Identity of the *guarantor(s)*
 - (ii) If the rating assigned by a *credit rating agency* played a substantial role in the *reporting fund's* (or its adviser's) evaluation of the quality, maturity or liquidity of the *guarantee*, the *guarantor*, or the security to which the *guarantee* relates, provide the name of each *credit rating agency* and the rating assigned by each *credit rating agency*.....
 - (iii) The amount (*i.e.*, percentage) of fractional support provided by each *guarantor*.....
- (n) If the security has any enhancements, other than those identified in response to Questions 62(l) and (m) above, on which the *reporting fund* (or its adviser) is relying when evaluating the quality, maturity, or liquidity of the security, provide the following information:
(If the security does not have such an enhancement, enter "NA.")
- (i) Identity of the enhancement provider(s)
 - (ii) The type of enhancement(s)
 - (iii) If the rating assigned by a *credit rating agency* played a substantial role in the *reporting fund's* (or its adviser's) evaluation of the quality, maturity or liquidity of the enhancement, its provider, or the security to which it relates, provide the name of each *credit rating agency* used and the rating assigned by the credit rating agency.....
 - (iv) The amount (*i.e.*, percentage) of fractional support provided by each enhancement provider

- (o) The yield of the security as of the reporting date:.....
- (p) The total *value* of the *reporting fund's* position in the security, and separately, if the *reporting fund* uses the amortized cost method of valuation, the amortized cost value, in both cases to the nearest cent:
 - (i) Including the value of any sponsor support.....
 - (ii) Excluding the value of any sponsor support.....
- (q) The percentage of the *reporting fund's* net assets invested in the security, to the nearest hundredth of a percent.....
- (r) Is the security categorized as a level 3 asset or liability in Question 14?.....
- (s) Is the security a *daily liquid asset*?.....
- (t) Is the security a *weekly liquid asset*?.....
- (u) Is the security an *illiquid security*?.....
- (v) Explanatory notes. Disclose any other information that may be material to other disclosures related to the portfolio security. (*If none, leave blank.*)

Item F. Disposition of Portfolio Securities

63. Disclose the gross market value (to the nearest cent) of portfolio securities the *reporting fund* sold or disposed of during each month of the *reporting period* by category of investment. Do not include portfolio securities that the fund held until maturity.

<u>Category of Investment</u>	<u>First Month</u>	<u>Second Month</u>	<u>Third Month</u>
[Drop-down menu of the category of investment]			
[Drop-down menu of the category of investment]			
[Drop-down menu of the category of investment]			

Category of Investment: *U.S. Treasury Debt; U.S. Government Agency Debt (if categorized as coupon-paying notes); U.S. Government Agency Debt (if categorized as no-coupon-discount notes); Non-U.S. Sovereign, Sub-Sovereign and Supra-National debt; Certificate of Deposit; Non-Negotiable Time Deposit; Variable Rate Demand Note; Other Municipal Security; Asset Backed Commercial Paper; Other Asset Backed Securities; U.S. Treasury Repo, if collateralized only by U.S. Treasuries (including Strips) and cash; U.S. Government Agency Repo, collateralized only by U.S. Government Agency securities, U.S. Treasuries, and cash; Other Repo, if any collateral falls outside Treasury, Government Agency and cash; Insurance Company Funding Agreement; Investment Company; Financial Company Commercial Paper; Non-Financial Company Commercial Paper; Tender Option Bond; or Other Instrument. If Other*

Instrument, include a brief description.

Item G. Parallel Money Market Funds

64. If the *reporting fund* pursues substantially the same investment objective and strategy and invests side by side in substantially the same positions as a *money market fund* advised by you or any of your *related persons*, provide the *money market fund*'s EDGAR series identifier. (If neither you nor any of your related persons advise such a money market fund, enter "NA.")

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GLOSSARY OF TERMS

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WAL

Weighted average portfolio life of a *liquidity fund* calculated taking into account the maturity shortening provisions contained in paragraph (i) of *rule 2a-7*, but determined without reference to the exceptions in paragraph (i) of *rule 2a-7* regarding interest rate readjustments, with the dollar-weighted average based on the percentage of each security's market value in the portfolio.

WAM

Weighted average portfolio maturity of a *liquidity fund* calculated taking into account the maturity shortening provisions contained in paragraph (i) of *rule 2a-7* with the dollar-weighted average based on the percentage of each security's market value in the portfolio.

Weekly liquid assets

Has the meaning provided in *rule 2a-7*. Include *daily liquid assets*. As a result, the value of *weekly liquid assets* should equal or exceed the value of *daily liquid assets*.